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TO A YOUNG LADY ON THE APPROACH
OF THE SEASON.

I.

At ten o'clock your maid awakes you ;
 You breakfast when she's done your hair ;
 At twelve the groom arrives and takes you
 In Kotten Row to breathe the air.
 From twelve to one you ride with vigor ;
 Your horse how gracefully you sit ;
 Your habit, too, shows off your figure,
 As all your cavaliers admit.
 One other habit I could mention —
 I hope your feelings won't be hurt,
 But you receive so much attention,
 I sometimes fancy you're a flirt.
 Of course you're not annoyed, I merely would
 indite
 Your life as you lead it by day and night.

II.

At two you've lunch ; at three it's over,
 And visitors in shoals arrive ;
 Admirers many, perhaps a lover —
 Your next event is tea at five.
 At six o'clock you go out driving
 From Grosvenor to Albert Gate,
 To occupy yourself contriving
 Till dinner time comes round at eight.
 Each hour as now the night advances
 Some fresh attraction with it brings ;
 A concert followed by some dances —
 The opera, if Patti sings.

III.

At twelve you waltz ; at one you've leisure
 To try some chicken and champagne ;
 At two you do yourself the pleasure
 Of starting off to waltz again.
 At three your partners hate each other —
 You scarcely know which loves you best ;
 Emotion you have none to smother,
 But lightly with them all you jest.
 At four your chaperon gives warning
 That it is really time to go ;
 You wish good night, and say next morning
 At twelve you'll meet them in the Row.

IV.

My darling, you're so very pretty,
 I've often thought, upon my life,
 That it would be a downright pity
 To look upon you as a wife.
 I don't think your ideas of marriage
 With those of many would accord,
 The opera, horses, and a carriage,
 Are things so few men can afford.
 And then you need so much devotion —
 To furnish it who would not try ?
 But each would find it, I've a notion,
 Too much for one man to supply.
 Of course you're not annoyed, I merely would
 indite
 Your life as you lead it by day and night.

H. SUTHERLAND EDWARDS.

Macmillan's Magazine.

LEISURE AND LOVE.

SOOTH 'twere a pleasant life to lead,
 With nothing in the world to do,
 But just to blow a shepherd's reed
 The silent season through,
 And just to drive a flock to feed —
 Sheep, quiet, fond, and few !

Pleasant to breathe beside a brook,
 And count the bubbles — love-worlds —
 there ;
 To muse upon some minstrel's book,
 Or watch the haunted air ;
 To slumber in some leafy nook —
 Or, idle anywhere.

And then a draught of nature's wine,
 A meal of summer's daintiest fruit ;
 To take the air with forms divine ;
 Clouds, silvery, cool, and mute ;
 Descending, if the night be fine,
 In a star-parachute.

Give me to live with love alone,
 And let the world go dine and dress :
 For love hath lowly haunts — a stone
 Holds something meant to bless.
 If life's a flower, I choose my own —
 'Tis "Love in Idleness" !

LAMAN BLANCHARD.

"REJECTED."

[A PICTURE IN THE ROYAL ACADEMY, BY
MARCUS STONE.]

HER little face is white with woe,
 Her downcast eyes are wet ;
 She had not meant to grieve him so,
 At least, — at least, — not yet ;
 It was so pleasant to be wooed,
 So hateful to be won, —
 Ah ! why should many a merry mood
 End in so drear a one !

She draws the curtain back, and peers
 Into the world beyond ;
 The garden gleams in flowery tiers,
 The fish leap in the pond ;
 Behind there is a misty hill, —
 How grey it all has grown !
 Perhaps it was her father's will,
 Perhaps it is her own.

He turns aside, — he pleads no more,
 But goes with drooping head ;
 A man is often wounded sore,
 Who dons a coat of red.
 And so he sadly rides away,
 Slowly o'er hill and plain ;
 But, let us hope, some other day
 He will ride back again !

Spectator.
June 1.

H. E. DUFF.

From The Westminster Review.

PHYSICS AND PHYSIOLOGY OF HARMONY.*

WHENEVER an attempt is made to review some great progress in any branch of the physical sciences a difficulty presents itself at the outset which is quite unknown to the writer on any political, social, or even metaphysical subject. The latter may almost invariably take it for granted that the facts which form the *basis* of his discussion or the substance for his reasoning are perfectly well known to those for whom he writes; indeed, he is quite aware that only that portion of the public which possesses a complete mastery of the antecedent facts, or at least a good acquaintance with correlated facts, will take a real interest in his arguments, while every one else will scarcely care to take cognizance of them, whatever their intrinsic merit or importance. Not so in science. It happens most frequently that the knowledge of the fundamental facts, which is required for a clear insight in any new great discovery or important principle, is even among the most educated either deficient or totally wanting as far as the particular subject is concerned, while yet the interest in any new great scientific acquisition and progress is most widespread and genuine. As a consequence the necessity has always presented itself to every writer on scientific subjects to proceed in a kind of historical manner, step by step from what has been known in the earliest times to what has been discovered only yesterday. It is no doubt due to such a method, which requires a never-flagging attention on the part of the reader, that much of the proverbial dryness of scientific literature is principally due; but, fortunately, the recent development of certain highly important and profoundly interesting generalizations in the physical theory of harmony rests so immediately on primary sensations, and on some few elementary facts

in acoustics, that a short glance at these latter is all that is required to understand what has been accomplished by an inter-scientific combination of these facts with well-known principles of physiology and the notation of music.

The phenomena of *sound* which are comprehended in the science of acoustics are essentially classed together under one name, because they are perceived by us through one particular organ of sense—the ear. The primary meaning of the term sound may accordingly be defined as any external action capable of exciting in us the sensation of hearing. When, however, those actions which we perceive as sound are examined as to their physical nature it is found that they all consist essentially in *motion*. In many cases this is easily recognizable by the touch; thus, for example, when sound is produced by a piano, or a violin, or a tuning-fork, a tremulous or vibratory motion may be felt in some parts of the sounding bodies. These vibrations are not accidental; if they are prevented by mechanical means the sound ceases; if the vibrating strings of the piano, or those of the violin, or the prongs of the tuning-fork, be touched with the fingers the sound is immediately stopped.

In order that a sounding body may be heard it is not sufficient for it to perform appropriate movements; it is necessary that these movements should be imparted to the ear by the motion of an intermediate material body. In most cases the movements of sounding bodies are propagated by the air, sometimes also, but much less frequently, by liquid or solid bodies. The transmission of the motion which constitutes sound must, however, be clearly distinguished from the progressive motion of the air itself, produced by various other causes, just as the advance of a wave on the surface of water is distinct from the onward flow of the water. A small body floating upon the wavy surface of water is lifted up and down by the waves, but it has little or no movement backwards or forwards. Indeed, careful experiments have shown that when a uniform series of waves follow each other along the surface of water the particles of the liquid which

* 1. *The Sensations of Tone as a Physiological Basis for the Theory of Music*. By HERMANN L. F. HELMHOLTZ, M.D., Professor of Physics in the University of Berlin. Translated, with Additional Notes and an Additional Appendix, by ALEXANDER J. ELLIS, B.A., F.R.S. London. 1875.

2. *Sound*. By JOHN TYNDALL, D.C.L., F.R.S., Professor of Natural Philosophy in the Royal Institution of Great Britain. 3rd Edition. London. 1875.

are disturbed by them describe each an ellipse or nearly a circle, and that consequently each particle returns again to the point from which it started, while the onward motion of the whole wave is due to the fact that each liquid particle commences its motion somewhat later than the preceding one. When sound is propagated through air the motion of the particles of air resembles to some extent that of the particles of water during the propagation of a wave, and hence sound is said to be propagated by an undulatory or wave motion of particles of air, but the resemblance is in reality confined to the fact that each particle performs the same definite movement, and commences its motion somewhat later than the preceding one. The path described by each particle is essentially different in the two cases. When a wave is propagated through water each particle describes as nearly as possible a circle; when sound is propagated through air each particle of air moves in a straight line, backwards and forwards, in the direction in which the sound is propagated. A wave of water is formed by a series of elevations and depressions, or crests and hollows; a wave of sound by a series of alternating compressions and rarefactions of air. It is of such essential importance to have at the outset a clear conception of this mode of propagation that it will be advisable to give here an experiment devised by Professor Tyndall:—

The propagation of sound may be illustrated by another homely but useful illustration. I have here five young assistants, A, B, C, D, and E, placed in a row one behind the other, each boy's hands resting against the back of the boy in front of him. E is foremost, and A finishes the row behind. I suddenly push A, A pushes B, and regains his upright position; B pushes C, C pushes D, D pushes E, each boy, after the transmission of the push, becoming himself erect. E, having nobody in front, is thrown forward. Had he been standing on the edge of a precipice, he would have fallen over, had he stood in contact with a window he would have broken the glass, had he been close to a drumhead he would have shaken the drum. We could thus transmit a push through a row of a hundred boys, each particular boy, however, only swaying to and

fro. Thus, also, we send sound through the air, and shake the drum of a distant ear, while each particular particle of the air concerned in the transmission of the pulse makes only a small oscillation.*

In a similar way the particles of air which fill the cavity of the ear are finally driven against the tympanic membrane, which is stretched across the passage leading from the external air towards the brain. This membrane, which closes outwardly the "drum" of the ear, is thrown into vibration, its motion is transmitted to the ends of the auditory nerve, and afterwards along that nerve to the brain, where the vibrations are translated into sound. How it is that the motion of the nervous matter can thus excite the consciousness of sound is a mystery which the human mind cannot expect to fathom.

But the sensations of sound are of great variety. Every language abounds in terms expressive of distinctly different sounds: snap, click, pop, crash, roar, ring, jingle, clatter, rustle, and a host of other words are each applied to a definite variety of sound which can be distinguished from every other variety. Again, all these varieties taken together, which are classified under the head of *noises*, are different from a *musical note* or tone. A noise is produced either by a single powerful explosive disturbance of the air—as, for instance, by a sudden blow, or the report of a pistol—or several disturbances interfere with one another, so as to produce confused waves in the air, as for instance in those sounds commonly designated as rattling, rustling, hissing, etc., in which the vibrations follow one another, either at irregular intervals or so slowly that each one can be perceived separately. A musical note or tone, on the contrary, is produced by vibrations which follow each other rapidly and at regular intervals. These two great classes of sounds have been characterized by Helmholtz in strikingly terse language, which is thus admirably rendered by Mr. Ellis:—

The nature of the difference between musical tones and noises can generally be determined by attentive aural observation without arti-

* Sound, p. 4.

ficial assistance. We perceive that generally a noise is accompanied by a rapid alternation of different kinds of sensations of sound. Think, for example, of the rattling of a carriage over granite paving-stones, the splashing or seething of a waterfall or of the waves of the sea, the rustling of leaves in a wood. In all these cases we have rapid, irregular, but distinctly perceptible alternations of various kinds of sounds, which crop up fitfully. When the wind howls the alternation is slow, the sound slowly and gradually rises and then falls again. On the other hand, a musical tone strikes the ear as a perfectly undisturbed, uniform sound, which remains unaltered as long as it exists, and it presents no alternation of various kinds of constituents. To this then corresponds a simple, regular kind of sensation, whereas in a noise many various sensations of musical tone are irregularly mixed up and as it were tumbled about in confusion. We can easily compound noises out of musical tones, as, for example, by striking all the keys contained in one or two octaves of a piano at once. This shows us that musical tones are the simpler and more regular elements of the sensations of hearing.*

The question which most naturally presents itself at this stage is this: what is the difference in the external means of excitement, on which the difference between noise and musical tone depends? We have seen that atmospheric vibration is the normal and usual means of excitement for the human ear. It is hence very obvious that the irregularly alternating sensation of the ear in the case of noises leads us to conclude that for these the vibration of the air must also change irregularly, while for musical tones we anticipate a regular motion of the air, continuing uniformly, and in its turn excited by an equally regular motion of the sonorous body, whose impulses were conducted to the ear by the air. These conclusions and anticipations have been strictly demonstrated to be correct by physicists, the regular motions which produce musical tones have been investigated with the utmost exactness, and the question proposed has been answered as follows: the sensation of a musical tone is due to a rapid periodic motion of the sonorous body; the sensation of a noise to con-

periodic motions. The definition of a periodic motion is thus given by Helmholtz:—

By a *periodic motion* we mean one which constantly returns to the same condition after exactly equal intervals of time. The length of the equal intervals of time between one state of the motion and its next exact repetition we call the *length of the oscillation, vibration, or swing, or the period* of the motion. The kind of motion of the moving body during one period is perfectly indifferent.*

The motion of a common pendulum, for example, is periodic, but its vibrations are far too sluggish to produce a musical sound. To produce a musical tone we must have a body which vibrates with the unerring regularity of the pendulum, but which can impart much sharper and quicker shocks to the air. If a watch, for example, could be caused to tick with sufficient rapidity—say one hundred times in a second—the ticks would lose their individuality and blend to a musical tone. And here we arrive for the first time at the borders of physiology. Why is a musical tone in general pleasurable, while a noise is painful, unless rendered agreeable by associations independent of its physical peculiarities? Thus a certain coarse pleasure is given to robust natures and to children by loud noise, as by any other kind of exciting stimulus; again, pleasures of sound are derived from voluminous effects which happen when sound comes from a sounding mass of large surface or extent—for example, the waves of the many-sounding ocean, the thunder, or the roaring wind. The difference in the physiological effect of noise and musical sounds is thus concisely described by Professor Tyndall:—

Imagine the first of a series of pulses following each other at regular intervals, impinging upon the tympanic membrane. It is shaken by the shock; and a body once shaken cannot come instantaneously to rest. The human ear is indeed so constructed that the sonorous motion vanishes with extreme rapidity, but its disappearance is not instantaneous; and if the motion imparted to the auditory nerve by each individual pulse of our series continue until the arrival of its successor the

* Sensations of Tone, p. 11.

* Sensations of Tone, p. 13.

sound will not cease at all. The effect of every shock will be renewed before it vanishes, and the recurrent impulses will lock themselves together to a continuous musical sound. The pulses, on the contrary, which produce noise are of irregular strength and recurrence. The action of noise upon the ear has been well compared to that of a flickering light upon the eye, both being painful through the sudden and abrupt changes which they impose upon their respective nerves.*

The physical basis of the effects of harmony and dissonance is here already foreshadowed. It will be seen in the sequel that a simple, regular, mathematical law must connect the physiological effect with the external physical cause in order to produce harmony, while the absence or greater complexity of the numerical law leads to disharmony. But we must first study more in detail the essential points in which musical sounds differ from one another before we are enabled to discuss the more difficult principles involved in the theory of harmony.

Musical sounds differ primarily in three points, and are distinguished by loudness or *intensity*, by *pitch* or relative height, and by their *quality*. It is unnecessary to explain the meaning of the terms intensity of a musical sound, or pitch of a note. By the quality of a tone is meant that peculiarity which distinguishes the musical tone of a violin from that of a flute or that of a clarinet, or that of the human voice, when all these instruments produce the same note, at the same pitch and of the same intensity; but in order to explain the physical conditions and peculiarities of the motion of sound which correspond to these three principal differences between musical tones, and to understand the nature of their combinations, we must as briefly as possible describe some of the principal experimental methods of producing musical sounds and combinations of them for the purposes of physical investigations.

Galileo produced a musical sound by passing a knife over the edge of a piastre. The minute serration of the coin indicated the periodic character of the motion, which consisted of a succession of taps quick enough to produce sonorous continuity. The production of a musical sound by taps is usually effected by causing the teeth of a rotating wheel to strike in quick succession against a card. This method has led to valuable results in the hands of the eminent experimenter

Savart. But more important is an apparatus in which musical sounds are produced by a succession of puffs of air. In its most simple form this apparatus, called the *siren*, consists of a circular sheet of millboard, in which several concentric rows of holes are punctured in circles round the centre. If air is blown into one end of a small tube of the same internal width as the aperture of the holes, while the other end is held opposite to the line of openings close to the disc, and the latter be rapidly rotated, the current of air will be interrupted when the cardboard is against the jet, but it will pass whenever an aperture comes opposite it. The current will, in fact, be stopped and opened as many times in each second as there are apertures which pass the end of the tube in the same time. This is the simple principle of the instrument which in the hands of Helmholtz has led to most surprising results, and it will be worth our while to take some of the experimental facts which it establishes at once into further consideration.

Let us suppose that air is blown through the tube, and the siren rotates at a definite speed. A musical note of definite pitch is the result. Let now the velocity with which the disc rotates be increased: the pitch of the note will rise with the velocity of rotation, and if the apparatus be then allowed to come to rest by itself, the note becomes deeper and deeper, until it is lost in the sound caused by the current of air. If, on the contrary, the velocity is maintained during the experiment as nearly constant as possible for some time, the note will remain the same, or as it is expressed, its pitch will remain unaltered. The experiment proves conclusively that difference in pitch—that is, whether a note is low or high—depends on the frequency with which the pulsations of the air are produced, and that if the frequency increases the note becomes higher, if the frequency decreases the note becomes lower, or generally the pitch increases and decreases with the number of sonorous vibrations produced in a unit of time; and notes having the same pitch, whatever their origin, are produced by the same number of sonorous vibrations. In music two notes produced by the same number of vibrations in the same time, are said to be “in unison,” no matter by what instruments they are produced. To each note a symbol or name is given, and the position of each note amongst musical sounds is de-

* Sound, p 48.

terminated by the *ratio* which the number of its vibrations bears to the vibrations performed in the same time by a certain other note, which may be arbitrarily chosen, and is called the "fundamental note." The particular note which is produced by twice the number of vibrations which produce the fundamental note, is said to be an "octave" higher, while that produced by half the number of vibrations is said to be an octave lower than the fundamental note. If we take the deepest note which our pianos usually possess, the *contra C*, which is produced by thirty-three vibrations in a second, as our fundamental note, then every corresponding *C* in the successive octaves will be produced by 66, 132, 264, etc., vibrations in a second.

If in experiments with a siren the velocity of rotation is maintained constant, while the force with which the air is blown through the tube is increased, the note remains of the same pitch but becomes louder. In this case the vibrating particles of air describe larger spaces to and fro than when the force of impulse is less, and it follows that the intensity or loudness of a musical tone increases and diminishes with the extent, or so-called amplitude of the oscillation of the particles of the sounding body.

When we strike a string its vibrations are at first sufficiently large for us to see them, and its corresponding tone is loudest. The visible vibrations become smaller and smaller, and at the same time the loudness diminishes. The same observation can be made on strings excited by a violin-bow, and on the reeds of reedpipes, and on many other sonorous bodies. The same conclusion results from the diminution of the loudness of a tone when we increase our distance from the sounding body in the open air, although the pitch and quality remain unaltered; for it is only the amplitude of the oscillations of the particles of the air which diminishes as their distance from the sounding body increases. Hence loudness must depend on this amplitude, and none other of the properties of sound do so.*

It is clearly possible to produce notes by any number of vibrations, but here a remarkable physiological fact becomes prominent for the first time: only those notes are acceptable to the ear, when used in conjunction with each other—as, for instance, in the same piece of music—whose vibrational numbers bear certain definite ratios to each other, or—as the same fact is expressed in the language of

musicians—which form with each other certain definite musical "intervals." The whole series of sounds which are available for the formation of musical combinations, when arranged in the order of increasing frequency of vibration, constitute what is called the "musical scale" or "gamut." The scale used in the simplest kind of music divides the octave into seven notes, each of which is characterized by the fact of its rate of vibration bearing a determinate ratio to that of the lowest note. Thus, for example, in the octave of which the lowest note is *C*, the number of vibrations of the series of notes is as follows: 264, 297, 330, 352, 396, 440, 495; and 528, or twice 264, is consequently the number of vibrations of the lowest note in the next octave. Again, the ratios which these numbers have to each other are obviously the following: 1, 9-8, 5-4, 3-4, 3-2, 5-3, 15-8, 2. It is certainly a wonderful and peculiarly interesting mystery that in the theory of musical sounds, in the physical and technical foundations of music, which above all other arts seems in its action on the mind as the most immaterial, evanescent, and tender creator of incalculable and indescribable states of consciousness, that here in especial the science of strictest thought—mathematics—should play so prominent a part.

This relation of whole numbers to musical consonances was from all time looked upon as a wonderful mystery of deep significance. The Pythagoreans themselves made use of it in their speculations on the harmony of the spheres. From that time it remained partly the goal and partly the starting-point of the strongest and most venturesome fantastic or philosophic combinations, till in modern times the majority of investigators adopted the notion that the human mind had a peculiar pleasure in simple ratios, because it could better understand them and comprehend their bearings. But it remained uninvestigated how the mind of a listener not versed in physics, who perhaps was not even aware that musical tones depended on periodical vibrations, contrived to recognize and compare these ratios of the vibrational numbers.*

Before we learn what processes really take place in the ear to render sensible the difference between consonance and dissonance, it will be necessary to make ourselves further acquainted with some of the more recent experimental results connected with the *quality* of tones, and the effects of their combinations. We may with this aim continue to illustrate the

* Sensations of Tone, p. 17.

* Sensations of Tone, p. 24.

peculiarities of sound-motion by the visible motions of waves of water. The lengths of waves of water, measured from crest to crest, are extremely different. From the gentle curl that ripples the surface of a pond to the waves of a stormy ocean, we may pass through an infinite variety of waves of water. Similar differences are presented by the waves of sound. The little curls of water with short lengths of wave correspond to high tones, the giant ocean billows to deep tones. Thus the contra C, previously mentioned, has a wave thirty-five feet long, while the highest tones of a piano tone have waves of only three inches in length. Just as the pitch of the tone corresponds to the length of the wave, so does the height of the ridge, that is the degree of alternate condensation and rarefaction of the air, correspond to the loudness and intensity of tone. But waves may be of the same height and yet have different forms. The crest of the ridge, for example, may in one wave be rounded off, in another it may be pointed. Now, the quality of tone, or *timbre*, is precisely what corresponds to the *form* of the wave. This fact will present no difficulty if we recollect that for the generation of a musical tone we have only required that the motion should be periodic—that is, that in any one single period of vibration exactly the same state should occur, in the same order of occurrence as it presents itself in any other single period.

As to the kind of motion that should take place within any single period no hypothesis was made. In this respect then an endless variety of motions might be possible for the production of sound. Observe instances taking first such periodic motions as are performed so slowly that we can follow them with the eye. Take a pendulum, which we can at any time construct by attaching a weight to a thread and setting it in motion. The pendulum swings from right to left with a uniform motion uninterrupted by jerks. Near to either end of its path it moves slowly, and in the middle fast. Among sonorous bodies which move in the same way only very much faster we may mention tuning-forks. When a tuning-fork is struck or is excited by a violin-bow and its motion is allowed to die away slowly, its two prongs oscillate backwards and forwards in the same way and after the same law as a pendulum, only they make many hundred swings for each single swing of the pendulum.

As another example of a periodic motion take a hammer moved by a centre wheel. It is slowly raised by a millwork, then released, and falls down suddenly; is then again slowly raised, and so on. Here again we have a periodic backwards and forwards motion; but

it is manifest that this kind of motion is totally different from that of the pendulum. Among motions which produce musical sounds, that of a violin-string, excited by a bow, would most nearly correspond with this. The string clings for a time to the bow, and is carried along by it, then suddenly releases itself like the hammer in the mill, and, like the latter, retreats somewhat with much greater velocity than it advanced, and is again caught by the bow and carried forward.*

Physicists are in the habit of applying a graphical method, in order to render the laws of such motions more comprehensible to the eye than is possible by lengthy verbal descriptions. To understand this method we may suppose a pointed drawing-pencil to be fastened to the prong of a tracing-point in such a manner as to mark a surface of paper. When the tuning-fork is not sounding, and drawn in a definite direction along the paper, or the paper be drawn under it in an opposite direction, the point will clearly mark a line on the paper, which is straight. But if the prongs have been first set in vibration the point will describe an undulating line. This wavy line represents a permanent image of the kind of motion performed by the end of the fork during its musical vibration.

The form of waves of sound, on which depends the quality of the tones produced by various sounding bodies, can at present not be assigned in all cases. Physicists are not yet able to make all vibrating bodies describe their vibrations directly on paper, but much progress has recently been made in the methods required for this purpose. When the law of a motion of a sounding body is known, the curve which represents it may, however, be drawn independently. For suppose that we know how far the vibrating point will be from its mean position at any given moment of time, then all we have to do is to set off along a horizontal straight line lengths corresponding to intervals of time, and to draw perpendiculars to it on either side, making their lengths equal or proportional to the distance of the vibrating point from its mean position. If we then join the extremities of these perpendiculars we obtain a curve such as the vibrating body would have drawn if it had been possible to make it do so. If we represent in this manner the motion of the hammer raised by a water-wheel, we shall obtain, instead of the undulating line of the tuning-fork, a broken or zigzag line,

* Sensations of Tone, p. 29.

of which each portion consists of two lines, one rising gently to a certain height like an inclined plane, the other falling abruptly down to the horizontal line again. As such a line in the main represents the motion of a point in a string excited by a violin-bow, we may at once fully comprehend the difference in the form of the sonorous wave between the tuning-fork and the violin-bow, both producing the same note of equal intensity. We shall have two waves, in which the crests have equal height, in which the distance from crest to crest is the same; the only difference—that of quality or timbre—being the form of each vibration, one being a wave in which ridge and hollow are gently rounded off, equally broad and symmetrical so that if we inverted the curve the ridges would exactly fit into the hollows, and conversely; while the other consists of straight slopes, gently ascending on one side and abruptly descending on the other, with a sharp ridge at each crest and a corresponding sharp angle in each hollow.

Let us next glance at some effects of combinations of musical tones. By producing different notes simultaneously we shall at once discover that some combinations produce a much more pleasing effect than others. The most pleasing result is attained when one note is just an octave above the other. In this case the ratio of the vibrational numbers is 1 : 2. Such a combination of two musical sounds which make an agreeable impression is called a "concord," or consonance. Next to the octave the most pleasing concords are produced by notes, the ratios of whose numbers of vibrations are those given by the numbers 4 : 5 : 6. Three such notes form a harmonic triad, and if sounded with a fourth note, which is the octave of the first of the triad, the whole constitutes in music the "major chord." It is unnecessary for our purpose to enter into numerical details of the series of consonances. The whole has been summed up by Professor Tyndall with his usual compactness and grasp of facts, in the following manner, after describing the experiments made with a siren, in which the number of holes opened could be varied at will with the requirements of each experiment:—

These experiments amply illustrate two things—firstly, that a musical interval is determined, not by the absolute number of vibrations of the two combining notes, but by the ratio of their vibrations; secondly—and this is of the utmost significance—that the smaller the two numbers which express the ratio of

the two rates of vibration, the more perfect is the consonance of the two sounds. The most perfect consonance is the unison 1 : 1; next comes the octave, 1 : 2; after that the fifth, 2 : 3; then the fourth, 3 : 4; then the major third, 4 : 5; and finally the minor third, 5 : 6. We can also open two series, numbering respectively eight and nine orifices; this interval corresponds to a *tone* in music. It is a dissonant combination. Two series, which number respectively fifteen and sixteen orifices, make the interval of a *semitone*; it is a very sharp and grating dissonance.*

The question most obvious at this stage is this: whence does this arise; why should the smaller ratio express the more perfect consonance? In order to answer this question it is absolutely necessary to proceed to a more refined analysis of sound than that with which we have so far become acquainted. Let us for this purpose first suppose that we have two metallic wires, precisely equal in every respect, stretched along a sounding-board. It is well known that wires of this kind, when plucked with the finger or excited by a violin-bow, will generate a musical note, the pitch depending on the length, tension, and thickness of the wire, in accordance with definite well-established physical laws. By our hypothesis both wires are precisely equal, and if they are sounded simultaneously and in the same manner, we shall expect that two notes of the same pitch will be produced independently, that the effect of each sound taken singly will be increased considerably by the effect of the other, that consequently the sound of both will be louder than the sound of each when heard alone, but that if both tones are really in unison the sound must have a uniform intensity throughout. But let us suppose that the pitch of the two notes is only very nearly the same. What will happen in this case is an obvious consequence of the fundamental facts in the production of sound. Since the rate of vibration is not exactly the same for both sounds, the condensations and rarefactions of air which are produced by the two sonorous bodies cease to take place at the same time. After a short time the condensation produced by one body coincides with the rarefaction produced by the other body, and *vice versa*; both sounds mutually destroy one another, and this happens clearly when one body has performed just half a vibration more than the other. If one body is in advance of the other by a whole vibration, the condensations and rarefactions again take

* Sound, p. 362.

place at the same time, and the intensity of the sound is again increased. These alternations in the intensity are termed *beats*, and they indicate a difference in the pitch of two notes, which is the greater the more frequent the beats.

Let us as our second step of analysis suppose that one of the wires only is excited close to one extremity. It will vibrate and produce a definite note, its "fundamental note," and it is well known that by lightly touching the wire in the middle the note produced will be the octave of the fundamental note; the wire will be seen to vibrate on both sides of the middle point in two "ventral segments," while the middle point itself remains at rest, and forms a "node." In a similar manner the string may be divided into 3, 4, 5, 6, and many more ventral segments, and each new division will clearly generate a new note. The great fact to be learned from these experiments is that a body is thus capable of producing notes which are higher than its fundamental tone. These higher notes are termed "overtones" by Professor Tyndall, but Professor Ellis has preferred to use different terms for this phenomenon, which will be best comprehended from the manner in which he renders Helmholtz's introduction to this part of the subject, which is of primary importance in the present theory of harmony:—

On exactly and carefully examining the effect produced on the ear by different forms of vibration, as, for example, that corresponding nearly to a violin-string, we meet with a strange and unexpected phenomenon, long known indeed to individual musicians and physicists, but commonly regarded as a mere curiosity, its generality and its great significance for all matters relating to musical tones not having been recognized. The ear, when its attention has been properly directed to the effect of the vibrations which strike it, does not hear merely that one musical tone whose pitch is determined by the period of the vibrations in the manner already explained, but in addition to this it becomes aware of a whole series of higher musical tones, which we will call the *harmonic upper partial tones*, and sometimes simply the *upper partials* of that musical tone, in contradistinction to the first tone, the *fundamental* or *prime partial tone*, or simply the *prime*, which is the lowest and generally the loudest of all, and by whose pitch we judge of the pitch of the whole *compound musical tone*, or simply the *compound*.*

We have assumed in our ideal experiment that one of the wires only has been

excited by our fingers or a violin-bow, but if the experiment is really performed an unexpected and remarkable event will take place, which has not only supplied Helmholtz with experimental means for the most refined analysis of sound, but brings us to the clearest insight into the physiological phenomena presented by the most delicate structures of the internal ear, and that connection of these structures with sounds on which the modern theory of harmony rests. The facts which we shall observe are these. Let us suppose that both wires are at starting perfectly in unison, and one wire is now excited: the other wire will immediately begin to vibrate without being touched. Close to the wire these vibrations are easily observed; at a distance they may be rendered visible by little paper "riders" placed on the second wire, which will be thrown off as soon as the first wire is set in vibration; or immediately after the first wire is sounded it may be touched in several places by the fingers; its vibrations will thus be stopped, so that it can no longer produce sound; but as the note is still heard, it is clear that the second wire is sounding. Vibrations communicated in this manner by one body to another are called *sympathetic vibrations*, and when the communicated vibrations produce sound the whole phenomenon is called *resonance*. Whenever it happens that a body capable of performing independent sonorous vibrations is reached by the sound-waves of a tone of the same pitch as that which it would itself emit, resonance is produced. In our experiment the motion of one wire is transferred to the other by the intervening solid particles of the wooden box upon which both wires are supposed to be stretched; but transference of sonorous vibrations may also be effected, and resonance produced, by the mere undulations of the air itself.

Gently touch one of the keys of a piano-forte without striking the string, so as to raise the damper only, and then sing a note of the corresponding pitch, forcibly directing the voice against the strings of the instrument. On ceasing to sing the note will be echoed back from the piano. It is easy to discover that this echo is caused by the string which is in unison with the note, for directly the hand is removed from the key and the damper is allowed to fall, the echo ceases. The sympathetic vibration of the string is still better shown by putting little paper riders upon it, which are jerked off as soon as the string vibrates. The more exactly the singer hits

* Sensations of Tone, p. 33.

the pitch of the string the more strongly it vibrates. A very little deviation from the exact pitch fails in exciting sympathetic vibration.

In this experiment the sounding-board of the instrument is first struck by the vibrations of the air excited by the human voice.*

Sympathetic vibrations act frequently as a disturbing element in musical perceptions. When a piece of music is played on the piano some particular note is often unpleasantly accompanied by the jingling of some object of glass or metal which is in the room. If we find out what body it is that jingles, and strike it so as to make it sound, it will be found to give out the same note as that which, when played on the piano, causes it to chime in. The jingling sound is caused by its striking against neighboring bodies as soon as it begins to vibrate.

The first question which these facts suggest is this: what is the cause of the various forms of vibration to which, as we have seen, the different quality or timbre of notes is due? Can it be possible that the "color" of sound is due to the varying upper partials which accompany the same prime on different instruments? If we strike any note on a piano, and then sound the same note on a flute, an organ, a violin, or utter it with the voice, the difference in quality is undoubtedly partly due to some accidental accompaniments of the particular mode of producing the sound, as, for instance, the slight sound of rushing air which accompanies the blowing of the flute, or to the circumstance that the note struck may either rapidly decrease in intensity, as happens with the sounds of the piano, or may be distinguished by maintaining a uniform intensity, as in the case of the organ. But the main cause of the difference of quality is the production of "overtones," or upper partials, which accompany the fundamental tone. These upper partials not only differ in various sounding bodies, but differ even in the same body if it is sounded in different ways.

For the purpose of experimentally proving the presence of overtones as distinct tones, Professor Helmholtz has not only analyzed and decomposed sounds into their constituents, but he has verified the result of his analysis by performing the reverse operation, the synthesis; that is, he has reproduced a given sound by combining the individual sounds of which his "resonators" had shown that it was

composed. The principle of the resonator, or sound-analyzer, is of special interest, as it is founded on sympathetic vibrations. A volume of air contained in an open vessel—for example, a bottle—when caused to vibrate tends to yield a certain note, easily produced by blowing across the mouth of the bottle, and when that note is actually sounded in its neighborhood it will strengthen it by its own sympathetic vibrations. A resonator is thus essentially a glass globe furnished with two openings, one of which is turned towards the origin of the sound, and the other is, by means of an india-rubber tube, applied to the ear. If the tone proper to the resonance-globe exists among the upper partials of the compound tone that is sounded, it is strengthened by the globe, and thereby rendered distinctly audible. Since the note proper to a given globe, other things being the same, depends on the diameter of the globe and that of the uncovered opening, it follows that by means of a series of such globes the whole series of upper partials in a given compound tone can be rendered distinctly audible, and their existence put beyond a doubt.

By means of such analytical and synthetical researches it has been placed now beyond any doubt that differences in musical quality of tone depend solely on the presence and strength of partial tones, and in no respect, as has been supposed, on the differences in the phase of vibration under which these partial tones enter into composition.

It must be here observed that we are speaking only of musical quality as previously defined. When the musical tone is accompanied by unmusical noises, such as jarring, scratching, sighing, whizzing, hissing, these motions are either not to be considered as periodic at all, or else correspond to high upper partials of nearly the same pitch, which consequently form strident dissonances.*

Many interesting facts are connected with the results which have established the fundamental law which governs the quality of musical sounds. The following are among the most important. Simple tones, as those produced by a tuning-fork with a resonance-box, and by wide covered pipes, are soft and agreeable without any roughness, but weak and in the deeper notes dull. Musical sounds which are accompanied by a series of upper partials, up to a certain limit, in moderate strength

* Sensations of Tone, p. 61.

* Sensations of Tone, p. 187.

are full and musical. In comparison with simple tones they are grander, richer, and more sonorous. Such are the sounds of open organ-pipes, of the pianoforte, etc. If only the uneven partials are present, as in the case of narrow covered pipes, of pianoforte strings struck in the middle, clarionets, etc., the sound becomes indistinct, and when a greater number of partials are *audible*, the sound acquires a nasal character. Again, if the upper partials beyond the *sixth* and *seventh* are very distinct, the sound becomes sharp and rough. If less strong, the partials are not prejudicial to the musical usefulness of the notes. On the contrary, they are useful as imparting character and impression to the music. Of this kind are most stringed instruments, and most pipes furnished with tongues. Sounds in which upper partial tones are particularly strong acquire thereby a peculiarly penetrating character; such are those yielded by brass instruments.

We proceed now to consider the part played by the ear in the apprehension of quality of tone, and in the perception of harmony or dissonance. Like the complex systems of waves, each passing over others, and undisturbedly pursuing its own path, which may be observed from the parapet of any bridge spanning a river, or from a cliff beside the sea, in the same way we must conceive the air of a concert-hall traversed in every direction, and not merely on the surface, by a variegated crowd of intersecting wave systems. Each voice, each rustle of a dress, each instrument in the orchestra emits its peculiar waves which expand spherically from their respective centres, dart through each other, are reflected from the walls of the room, and thus rush backwards and forwards; and although this spectacle is veiled from the material eye, we have another organ of sense which reveals it to our mental perception. The ear analyzes this seemingly labyrinthine intersection of sound-waves, far more confused than that of waves of water; it separates the several tones which compose it, and distinguishes the voices even of individuals, the peculiar qualities of tone given out by each instrument, the rustling of the dresses, the footfall of the walkers, and so on. By what physiological apparatus is this astounding result effected? Professor Helmholtz begins his answer to this question with the following hypothesis:—

Suppose we were able to connect every

string of a piano with a nervous fibre in such a manner that this fibre would be excited and experience a sensation every time the string vibrated. Then every musical tone which impinged on the instrument would excite, as we know to be really the case in the ear, a series of sensations exactly corresponding to the pendular vibrations into which the original motions of the air had to be resolved. By this means, then, the existence of each partial tone would be exactly so perceived, as it really is perceived by the ear. The sensations excited by the different higher partials would, under the supposed conditions, fall to the lot of different nervous fibres, and here be produced perfectly, separately, and independently. Now, as a matter of fact, later microscopic discoveries respecting the internal construction of the ear, lead to the hypothesis, that arrangements exist in the ear similar to those which we have imagined.*

The essential parts of our organ of hearing, on either side of the head, consist, substantially, of two peculiarly-formed membranous bags, called respectively the "membranous labyrinth," and the "scala media" of the cochlea. Both these bags are lodged in cavities, situated in the midst of a dense and solid mass of bone, which forms part of the temporal bone. Each bag is filled with a fluid, and is also supported in a fluid which fills the cavity in which it is lodged. In the interior of each bag certain small mobile, hard bodies are contained; and the ultimate filaments of the auditory nerves are so distributed upon the walls of the bags, that their terminations must be affected by the vibrations of these small hard bodies, should anything set them in motion. It is also quite possible that the vibrations of the fluid contents of the sacs may themselves suffice to excite the filaments of the auditory nerve; but however this may be, any such effect must be greatly intensified by the co-operation of the solid particles; just as in bathing in a tolerably smooth sea, on a rocky shore, the movement of the little waves as they run backwards and forwards is hardly felt, while on a sandy and gravelly beach the pelting of the showers of little stones and sand, which are raised and let fall by each wavelet, makes a very different impression on the nerves of the skin. In like manner the membrane on which the ends of the auditory nerves are spread out is virtually a sensitive beach, and waves, which by themselves would not be felt, are readily perceived when they raise and let fall hard particles.

* Sensations of Tone, p. 190.

Both these membranous bags are lined by an epithelium, and the auditory nerve after passing through the dense bone of the skull is distributed to certain regions of each bag, where its ultimate filaments come into peculiar connection with the epithelial lining. The epithelium itself too at these spots becomes specially modified. In certain parts of the membranous labyrinth, for instance, the epithelium connected with the terminations of the auditory nerve is produced "into long, stiff, slender, hair-like processes,"* which project into the fluid filling the bag, and which therefore are readily affected by any vibration of that fluid, and communicate the impulse to the ends of the nerve. In certain other parts of the same labyrinth these hairs are scanty or absent, but their place is supplied by minute angular particles of calcareous sand, called "otoliths," lying free in the fluid of the bag; these, driven by the vibrations of that fluid, strike the epithelium and so affect the auditory nerve. In the scala media of the cochlea the lower wall is very elastic, and on it rest the *fibres of Corti*, named after their discoverer, the Marchese Corti: they are minute, rod-like bodies, and modifications of the epithelial lining of the scala media. Each fibre is composed of two filaments joined at an angle. An immense number of these filaments are set side by side, with great regularity, throughout the whole length of the scala media, "so that this organ presents almost the appearance of a keyboard."† The ends of the nerves probably come into close relation either with these fibres, or with the modified epithelium-cells lying close to them, which are capable of being agitated by the slightest impulse. These are then Helmholtz's conclusions:—

On reviewing the whole arrangement, there can be no doubt that Corti's organ is an apparatus adapted for receiving the vibrations of the membrana basilaris, and for vibrating of itself, but our present knowledge is not sufficient to determine with accuracy the manner in which these vibrations take place. For this purpose we require to estimate the stability of the several parts, and the degree of tension and flexibility with more precision than can be deduced from such observations as have hitherto been made on isolated parts, as they casually group themselves under the microscope.

The essential result of our description of the ear consequently consists in the constant connection of the termination of the auditory

nerves with a peculiar auditory apparatus, partly elastic, partly firm, which may be put into sympathetic vibration under the influence of external vibration, and will then probably agitate and excite the mass of nerves.*

Under this view the scala media of the cochlea resembles a keyboard, in function as well as in appearance, the fibres of Corti being the keys, and the ends of the nerves representing the strings which the keys strike. If it were possible to irritate each of these nerve-fibres experimentally, we should be able to produce any musical tone, at will, in the sensorium of the person experimented upon, just as any note on a piano is produced by striking the appropriate key. Now experiment proves that bodies like tuning-forks, which when once struck go on sounding for a long time, are susceptible of sympathetic vibrations in a high degree, notwithstanding the difficulty of putting their mass in motion, because they admit of a long accumulation of impulses in themselves minute, produced in them by each separate vibration of the existing tone. And precisely for this reason there must be the exactest agreement between the pitches of the proper tone of the fork, and of the existing tone, because otherwise subsequent impulses given by the motion of the air could not constantly recur in the same phase of the vibration, and thus be suitable for increasing the subsequent effect of the preceding impulses.

If we can suppose that of a set of tuning-forks—and it is suggested that the fibres of Corti are competent to perform the functions of such tuning-forks—tuned to every note and distinguishing fractions of a note in the scale, one were thus connected with the end of every fibre of the cochlear nerve, then any vibration communicated to the perilymph would affect the tuning-fork, which would vibrate with it, while the rest would be absolutely, or relatively, indifferent to that vibration. In other words, the vibration would give rise to the sensation of one particular tone, and no other, and every musical interval would be represented by a distinct impression on the sensorium. To the auditory apparatus of the cochlea must thus be assigned the function of discriminating with exactness the pitch and quality of tones, while the perception of intensity has been suggested as a function of the membranous labyrinth; the nerve-fibres terminating in it tell us that sounds are

* Huxley's "Physiology," p. 299.

† Ibid., p. 204.

* Sensations of Tone, p. 211.

faint or loud, but give us no impression of tone, or melody, or harmony.

We have hitherto mostly referred only to the physical characteristics of single musical tones, and to the physiological phenomena involved in their perception; and we have only alluded to the general law of consonance and dissonance, resulting from the combinations of tones, which has been founded on experimental basis — viz., that the smaller the two numbers which express the ratio of the two notes of vibration, the more perfect is the consonance of the two sounds. We have also seen that when two notes which differ in pitch are sounded together, their sounds “interfere,” the result of the interference being an alternation in intensity; “beats” are produced, which are the more frequent the greater the difference in pitch of the two notes. As long as no more than four or six beats occur in a second, the ear readily distinguishes the alternate reinforcements of the tone, and such slow beats are not unpleasant to the ear. Very slow and regular beats often produce a fine effect in *sostenuto* passages, as in sacred part-songs, by pealing through the lofty aisles like majestic waves, or by a gentle tremor giving the tone a character of enthusiasm and emotion. But if the beats succeed so rapidly that twenty or more take place in one second, the sound is rendered harsh and grating. Such rapid beats are produced by combinations of certain notes. Two notes which differ by a semitone produce together a very unpleasant sound, because the difference in their vibrational numbers is such as to produce more than thirty beats in a second. Even when the fundamental tones have such widely different pitches that they cannot produce audible beats, the upper partial tones may beat, and make the tone rough, and this roughness of tone is the essential character of dissonance, for a feeling of discontinuity is excited, which is as disagreeable to the ear as similar intermittent but rapidly repeated sources of excitement are unpleasant to the other organs of sense; for example, flitting and glittering light to the eye, scratching with a brush to the skin. On the other hand, if the relation of those notes is investigated which when sounded together produce a pleasing effect, or consonance, it will be found that neither their fundamental tones nor their upper partials give rise to rapid beats. A given note together with its octave produces no beats; together with the fourth or fifth only weak beats, caused by partials which

are pretty high, and therefore not very perceptible; somewhat stronger beats originate in the remaining concords, the third and sixth, minor and major. As a consequence of this the sound is in these cases not quite so agreeable as in the first-mentioned concords. The existence or absence of strong and rapid beats is thus the sole physical cause of the dissonance or consonance of notes which are sounded together. Or, stating this conclusion in Professor Helmholtz's words:—

Collecting the results of our investigations upon beats, we find that when two or more simple tones are sounded at the same time they cannot go on sounding without mutual disturbance, unless they form with each other certain perfectly definite intervals. When these intervals exist, and there is no disturbance at all, the result is called a *consonance*. When these intervals do not exist, beats arise — that is, the whole compound tones, or individual partial and combinational tones contained in them or resulting from them, alternately reinforce and enfeeble each other. The tones then do not co-exist undisturbed in the ear. They mutually check each other's uniform flow. This process is called *dissonance*.*

This brings us into the very heart of the theory of harmony. Harmony and disharmony are distinguished by the undisturbed current of the tones in the former, which are as smoothly flowing as when produced separately, and by the disturbances created in the latter, in which the tones split up into separate beats. In disharmony the auditory nerve feels hurt by the beat of incompatible tones; it longs for the pure flowing of the tone into harmony.

The view, taken in the recent theory of sound-perception, of the use of Corti's fibres will enable us here also to trace the mental and physical phenomena in their relation to the physiological. When two sounds coalesce to produce beats, the intermittent motion is transferred to the proper fibre within the ear. But experiments prove that for the same fibre to be affected simultaneously by two different sounds, it must not be far removed in pitch from either of them. We have seen how one wire sympathetically responded to the vibrations of another wire near it.

Instead of two strings conceive three strings, all nearly of the same pitch, to be stretched upon the sonometer; and suppose the vibrating period of the middle string to lie midway between the periods of its two neighbors, being a little higher than the one and a little lower

* Sensations of Tone, p. 308.

than the other. Each of the side strings sounded singly would cause the middle string to respond. Sounding the two side strings together they would produce beats; the corresponding intermittence would be propagated to the central string, which would beat in synchronism with the beats of its neighbors. In this way we make plain to our minds how a Corti's fibre may, to some extent, take up the vibrations of a note nearly but not exactly in unison with its own; and that when two notes close to the pitch of the fibre act upon it together, their beats are responded to by an intermittent motion on the part of the fibre. This power of sympathetic vibration would fall rapidly on both sides of the perfect unison, so that on increasing the interval between the two notes a time would soon arrive when the same fibre would refuse to be acted on simultaneously by both. Here the condition of the organ necessary for the perception of audible beats would cease.*

We are thus in a condition to assign a distinct physiological reason why some combinations of tones are consonant and some dissonant. All our feelings and emotions, from the lowest sensation to the highest æsthetic consciousness, are ultimately referable to a purely mechanical cause, though it may be forever denied to us to trace our way between the well-ascertained cause and the patent ultimate result, though, as in this case, it may never be possible for human research to understand why the agitation of nervous substance can awake the delights which harmony imparts.

* Tyndall's "Sound," p. 371.

From Blackwood's Magazine.
THE LADY CANDIDATE.

CHAPTER VI.

"I AM so tired to-day, Rhoda, I think I shall not be able to go out this morning."

"But we did not finish our task yesterday, and there is the whole of Hammoth Lane to do to-day. Do you think, dear, we could do the White Cottage and Ivy Bank this morning only,"—she spoke coaxingly,—“and leave all those dirty little shops for the afternoon? Scoton says we are getting on wonderfully in the lower town; but he is astonished at the small show of resistance. I suppose they are waiting till young Greydon comes home: they have no placards up; his address is not even out. Sometimes I fancy we shall simply walk over the course; but Scoton scouts that idea. I believe he

is longing for a close contest. Well, what do you say to Ivy Bank and the White Cottage, dear?"

"Very well," said Annie, wearily; "it is just eleven. I will go and get my hat."

"And while you do so, I will wait in the garden in case any one should pass."

"Who did you say lives at Ivy Bank, Rhoda?" said Annie, as they started on their walk.

"The two Miss Hales," answered Rhoda, consulting her canvassing-book; "their brother, a navy surgeon and stanch Liberal—people of some fortune and influence."

"I hope not *very* formidable old maids," sighed Annie.

"Oh, no, don't be afraid; I feel every confidence now that we have got into such regular swing. Here we are!"

The bell startled the visitors by the violent and prolonged ringing that it made; but they had become very impatient before it was answered, and Rhoda was half inclined to try another peal. However, the door opened at last, and an uncouth-looking maid stood before them, whose shining scarlet hands betrayed a rapid plunge into a pail of cold water before she came up-stairs.

"Missus ain't at home," she said, gruffly.

"Then perhaps Miss Agatha is?"

"Miss Agatha don't see people alone."

"But at least take my message, girl."

"Can't, ma'am."

"Nonsense! Do as you are told."

"But please, ma'am, missus said as Miss Agatha wasn't to see nobody, she says."

"What slavery in this free country!" muttered Rhoda.

"My good girl," she said, "Miss Hale has no more right to prevent her sister from seeing us, than I have to—to—order you about."

The girl grinned.

"How old is Miss Agatha?"

"Something about forty, ma'am."

"And what's your name?"

"Anna, ma'am."

"Well, Anna, if you do not go to Miss Agatha, and tell her from me that I shall be much obliged to her if she will give me the honor of a few minutes' conversation, I shall ring this bell till some one else comes."

"Lawks! now don't do that, ma'am; I'll go, and welcome."

And the girl departed. After another interval of waiting in the hot doorway, she came back, and led the way into the par-

lor, a small room so darkened by green venetian blinds that at first they could see nobody in it: then somebody advanced from a corner, and cried in a very loud voice, —

"So glad to see you, hurrah! So you got in in spite of her? Ha! ha! ha!" and then came such a peal of laughter that Annie caught hold of her cousin's gown in terror.

"Have I the honor," began Rhoda, "of speaking to Miss Agatha Hale?"

"Honor! so I'm to get my due at last? Hurrah! Now do, you good dear souls, sit down. Oh, tell me all about it, and make a speech, — do now!" and again she fell into a paroxysm of laughter.

"I will do my best," said Rhoda, seating herself, "to explain to you the principles which have induced my cousin to come forward and contest this borough."

"Do — do now; oh, I am so pleased! I don't know when I've had visitors all to myself — hurrah! — and especially you."

"Especially us!" repeated Annie, timidly.

"Yes; because Jemima said that she would shut the door before your very faces sooner than that you should darken the threshold."

The laughter now was so prolonged that Annie had time to whisper, "Please come away, Rhoda; I am sure she's mad."

"Patience," whispered Rhoda. "Now, Miss Agatha, shall we proceed to business? I understand from our agent that Mr. Hale, your brother, is a Liberal."

"A what?"

"A Liberal; therefore thinking that in all probability you hold the same views, I have ventured to call on you to solicit your vote and the interest you possess on behalf of my cousin, Miss Herbert."

"The female candidate herself! oh law! I shall die;" and she rocked backwards and forwards convulsively.

"Perhaps you have not rightly understood," went on Rhoda, severely. "We have come to ask for your vote; and experience has proved that female members can be most useful legislators. I presume that you read your *Times*?"

"Only the *Ladies' Magazine* and the *Female Banner*."

"Not the *Rights of the Day*, or the *Female Champion*?"

"No, oh no! Ha! ha! ha!"

"Do, my dear lady, make an effort to be serious for five minutes."

"Hurrah!"

The canvassers glanced at each other in dismay. In the green twilight they could

see the very stout form of Miss Agatha rolling up and down in such intense enjoyment of laughter, that they felt quite bewildered. Rhoda determined to try again.

"Madam," she said, "will you allow me to point out that this is no laughing matter, but a serious matter of principle, in which right and wrong are involved, and much of the future greatness and usefulness of our country depends upon the results of this general election!"

"Hurrah! How well you speak?"

"But I want to make you understand what the importance of the question is. There is no doubt about it that many measures requiring the peculiar tact for which women are celebrated, will get much more admirably attended to when we are more adequately represented."

"Will they be allowed to bring in at least one baby, as they do at the mothers' meetings?" asked Miss Agatha, very eagerly.

"Imbecile," hovered on Rhoda's lips, but she repressed it vehemently. "No — surely not," she said; "they would disturb the debates terribly."

"But if they cry they are taken out at once," she went on.

"It is impossible, of course," said Rhoda, impatiently.

"Then, that being the case, I am afraid I cannot promise you my vote," said Miss Agatha, with a sudden assumption of dignity.

Rhoda glanced at Annie. "I am afraid we ought to be going on, Annie," she said, when suddenly the bell pealed through the house.

"It is my sister," said Miss Agatha, shrinking a little.

It is impossible to deny that the hearts of the two canvassers beat rather faster than usual, when they heard the steps and voice of the formidable Miss Hale outside.

She came in with a burst — a tall, thin woman, with black eyebrows, and very long arms, strong-minded written on every feature of her stern face. She left the door wide open, and seated herself in front of the cousins. "Well?" she said.

Rhoda glanced at the open door, and gathering up her courage, plunged into it at once, — "Miss Hale, having heard that your brother is a Liberal, and so, believing that your opinions might tend in the same direction, I have ventured to call, and —"

"Well?"

Rhoda shuddered, but went on, — "I

have been explaining my motives to your sister." Here Miss Agatha was seen stealthily trying to gain the door. "Sit down," said Miss Hale; and she obeyed, only in a very low voice ejaculating a strangled "Hurrah!"

"We—that is, my cousin is desirous of entering Parliament, there to endeavor to advance those views, which, in hopes of inducing you to accord us your votes, I should be glad of an opportunity of explaining to you——"

"Well?"

"We—we hold that——"

"Will you vote for the increased stringency of the law of Compulsory Adult Female Education Bill; for the Abolition of the Degrees of Universities, unless shared by Women; and the new clause respecting the expediency of hanging lunatics without a trial?"

"I—I have never heard of such bills," faltered Rhoda.

"Nor I," was the short answer.

"Madam," said Rhoda, with dignity, "I did not expect to be trifled with."

"Hurrah!" shouted Miss Agatha, bursting into laughter again.

Annie rose this time. "Rhoda," she said, "I am going. I am sorry that we should have intruded on you, Miss Hale; we will not do so again."

"Heyday!" exclaimed that lady, as Annie, with an unexpected look of dignity on her sweet face, swept by with a bow. Rhoda followed her to the door; but Miss Hale, with an unexpected spring, had passed her, and caught Annie's hand.

"No offence, my dear," she said. Annie looked up, and the tears rushed to her eyes. "Oh no," she said, wearily; "every one has a right to their own views."

"And my view is, that you have a glass of wine instantly!"

And before she could stop it, one was procured, and Annie was compelled to drink it—Rhoda looking on rather grimly as she did so.

"You don't look as if you wanted it," said Miss Hale to her.

"No, thank you."

"Well, take care that little thing don't overture herself, that's all, or you'll be sorry for it."

What happened nobody knew, but Rhoda and Annie found themselves outside the door and in the hot white road again in the twinkling of an eye; and they thought they could distinguish a loud "hurrah" from within.

"Have you courage for the White Cottage, Annie?"

Annie was struggling between laughter and tears; but she gathered up all her courage.

"I have, if you have, Rhoda."

"I must say I feel rather shaken," answered the strong Rhoda. "Do you think they are both mad?"

"No; I think Miss Agatha is rather, and the other one very eccentric. Oh dear! her laughter rings in my ears still."

"Let us sit here a moment and recover ourselves."

They seated themselves on a small heap of timber for a few moments.

"Look, Rhoda," said Annie; "I think that man is going to speak to us."

A fat elderly man in light grey garments, with his hat at the back of his head, came swaggering up to them.

"Very hot, ladies," he said, wiping his brow with a purple silk handkerchief. "I saw you going into the Miss Hales', and I waited about in hopes that you were coming my way."

Rhoda's face lit up.

"May I ask for the favor of your name?" she said.

"White—my name's White, ma'am; and a very good name it is. White's bacon has been known a long time in London, ma'am; and though I'm independent of the knowledge myself, having retired, wife and children, from the trade, yet I'll back White's home-cured against any in England."

"And you live at the White Cottage, Mr. White? We were on our way to call there, but were resting on the way."

"Most happy, ma'am. Allow me to precede you three steps, ma'am. I'm sure Mrs. White will be proud, ma'am. I'm a political character myself, you see; shall be proud to do the honors of my 'umble little home."

And he led the way down the road to the door of the square house, which attracted the eye for miles round by the brilliancy of its whitewash.

Mr. White flung the door open, and with a low bow ushered them into a smart drawing-room, with blinds closely drawn that no particle of sun should reach the furniture. Just putting his head out of the door, he shouted, "Mrs. W., company!" and returning, seated himself opposite to his guests. "Ladies," he said, addressing himself to Rhoda, "I am a political man myself; and, like every man of experience and forethought nowadays, I am a Radical. You, I understand, are the same. Now my opinion is, that when a member is returned for a borough,

he or she is bound, actually bound, to forward the interests, the private interests, of the principal individuals whose interest has procured election for them."

Rhoda bowed.

"I see that on this point we are at one. Quite so. Now I presume that should the borough return a female member, that that member will undertake not to marry—at least, to resign and offer herself for re-election should she wish to do so."

"I see no necessity for such a condition, sir."

"No—it is natural that you should not, madam; but you must remember that the intellect of woman is still in its infancy."

"Sir!"

"Allow me to continue, my dear madam! I and a certain number of my fellow-voters have made this condition imperative before pledging ourselves to return a female member. You see, though our knowledge of Annie Herbert individually is small, our knowledge of females is extensive; and I (I may speak in the singular, being the instigator and propagator of the idea)—and I conceive that a woman, when she marries, generally submits her political opinions to those of her husband."

"No, no."

"Yes, ma'am, yes. I do not say that it ought to be so, or that it will be so when education has done its part in strengthening the weak and levelling the strong; but it is so at present. I would not object to the election of a woman married for some years, whose actions and character have had time and opportunity of showing that she is independent of influence and above control; but I expect an unmarried woman to take the pledge, because she has been untried; and no one knows what the effect of matrimony will be on her political views—d'ye see?"

"It shows an unfair want of confidence."

"Not at all, ma'am; not at all. But you must see that the one and only object of having a female representative is, that she is more under the influence of the principal men of the borough, more easy to dictate to, more dependent like."

"This is not my view of it, Mr. White."

"Sorry for it, ma'am; but I must insist upon my condition."

"I must have time for consideration."

"Will you address us, ma'am, at the Lion on Monday? I will have my friends together to hear what you have to say. Three days is enough of consideration, is it not?"

"Yes," said Rhoda. "We will consult our agent, Mr. Scoton, and let you know."

The door opened here, and Mrs. White, who had been engaged in donning her best bronze-colored silk gown, sailed in, and floated sideways into a chair.

"So 'appy to see you, ladies," she said.

"Augustus thought that you would drop in. Ring, Augustus."

Augustus did as he was told.

"And perhaps," continued the languid lady, "you can furnish us with a little news. This is such a dull neighborhood that, except when the Honorable Mrs. Jones is at home, I hear nothing about the *élite*, and it is not what I've been accustomed to."

"We have been abroad for some weeks."

"But I presume you passed the season in London. Did my health but permit, as the Honorable Mrs. Jones says, vegetabing in the country is an 'error.'"

"We had a very gay season," said Annie, smiling.

"And did you observe what was most worn—trains or *jupe-cour*?"

"Decidedly trains."

The door opened, and a very large page entered, tightly compressed in a buttons uniform, from which it seemed as if his body were endeavoring to escape by forming all manner of abnormal swellings. He placed a bottle of hot-looking sherry and sponge-cake before the lady, who proceeded to help her guests without asking them whether they would take any.

"I have just obtained from Coutoux & Grant a *toilette de ville*," she continued. "Train, *plissés* of white or chocolate, gathered in at the waist, falling at back of skirt, and finishing with two large bows and *bouillonnés* of white and chocolate, green sash ends as a *négligé* from centre behind, fringe chocolate and white. The Honorable Mrs. Jones often says to me, 'Give me your modes, Mrs. Augustus White, and I'll undertake to be the best-dressed lady in London; and so you might yourself,' she says, 'but for your 'ealth;' and that was said at sight of my blue, though I must confess I like my red the best. I suppose you and Augustus have been talking politics?"

"We have, Mrs. White."

"Ah, I suppose you agree like brother and sister; you look perfectly suited to each other in opinion, I must say."

A slight shiver passed through the frame of the female candidate.

"I am glad he should have something to amuse him, poor dear. A man's so help-

less without a club or friends as can sympathize with him."

"Have you no club in so large a town?"

"Bless you, yes, ma'am! we have both a club and a coffee-house — but so coarse and rough. The farmers all belong to it, and there is no delicate discussion of music and the harts as you might enlighten a man's mind with in London. But my health's a sad drawback. A little of your society will be a great gain to Augustus; we will take an early opportunity of calling."

"I hope you will," said Rhoda, rising; "and I will communicate with you," she continued to Mr. White, "through our agent, Mr. Scoton, on the subject of meeting you at the Lion on Monday."

With profound bows on all sides, the female candidate and her friend found themselves once more on *terra firma*.

"*Le jeu vaut-il la chandelle?*" said Annie, wearily.

"Come, come, Annie; I look upon that as a success."

As they reached their door, they were met by Scoton running to meet them with his hat off.

"Our opposition is not considered so lightly after all, Miss Langdon," he cried. "Captain Somers has been sent for, and has already arrived."

"Captain Somers! why, who is he?" cried Rhoda; for Annie had caught hold of the door-post as white as a sheet.

"Why! the Conservative candidate, to be sure. Colonel Greydon's son!"

"Greydon! Somers!"

"Yes; he was obliged to take his mother's name with some money, I believe, from her father. I don't know the rights of it; but it is good news that they have ceased to consider us of no consequence."

Scoton followed Rhoda into the house, and they were soon deep over canvassing-books. Annie had fled up-stairs to her own room.

CHAPTER VII.

MEANWHILE, the one only and highly-petted son of the house had returned to Greydon Castle, his luggage consisting of four portmanteaus, two hat-boxes, gun-case, fishing-rods, and other paraphernalia. It was just the time for luncheon when he arrived, and he was immediately set down to eat, and answer innumerable questions from his eager sisters. His father, divided between his delight in having his son home again, and vexation that he should have judged it necessary to return quickly for so insignificant an opposition, paced

up and down the room, answering questions as quickly as they were asked.

"And Jones is perfectly satisfied that there is no danger, father?"

"Jones says so over and over again; but he is always such an impatient fellow, he does nothing but grumble at your delay in coming home, and he wants you to speak to-morrow night. He has got a meeting and an audience, and they meant to have done their best without you; but he was here five minutes before you came, and when I told him you were expected, he went straight off to the town to proclaim the fact that you would speak to-morrow. He says that fellow Scoton is making great way in the lower town."

"And now tell me what my rival is like. I met a most charming Miss Herbert at Ragatz, who fascinated both Burnley and myself. Give me some cake, Amy. Thanks; that is rather too much."

"This Miss Herbert is a very tall woman, with very black hair and eyes," said the colonel; "a woman who has, I hear, a marvellous gift of the gab. She actually tried to canvass Brand — the impudence of it's —"

"Come, that's too bad."

"What are you going to do this afternoon?"

"I shall just make the round of my committee and see how the land lies. Hollo! there's Jones coming posting up the road, nearly black with rage. What's the matter, old fellow?" asked Captain Somers, opening the window.

"Matter! It is time that you were at home, captain! I can't get the town-hall to-morrow night."

"But do you mean that you had not settled it before?"

"Not I — you see I have been accustomed to take things easy; it seems it has been engaged this whole week."

"Well, have it to-night. Come, I see we are in for a spirited contest. Send round at once, Jones — not a moment to lose; and we will have our speeches to-night, and beat them in having the first say. I had better be off at once," he added to his father; "after all, there is some fun in the thing."

A crowd of eager people filled the town-hall that night to hear their young candidate's first speech. It lasted for more than an hour, and was received with unbounded applause; and for a first speech it was an uncommonly good one — frank, simple, and manly; but it did not need an even moderately good speech to please the audience, with whom Captain Somers had

always been a great favorite; and their enthusiasm almost carried them beyond bounds and prevented their appreciation of the very sterling but less interesting speeches that followed in due course. Colonel Greydon, as he came down from the platform, believed the cause won, and was half inclined to quarrel with the more serious view his son's committee held; they were becoming slightly alarmed at the way the Radicals were advancing; some stanch old supporters had failed, a very large number of the younger voters were supposed to be unsteady; on the female votes Jones declared he could depend to a woman! The meeting ended about half past nine, but it was long before the hurrahing, noisy crowd dispersed.

About half past nine o'clock Annie Herbert and her cousin were returning home from the White Cottage, where they had taken tea with Mr. and Mrs. Augustus White. They had had a very disagreeable evening, Mr. White arguing on the subject of his favorite pledge to be taken by the female candidate; Mrs. White familiar and tiresome; and Annie was wearied, and Rhoda disgusted. The climax arrived when, as they were leaving the house, Mr. White patted Rhoda on the back, saying, "Ye're the one that ought to stand, my fine girl!" She could scarcely contain her indignation.

It was a fine moonlit night, and they began to loiter a little along the road, watching the beautiful fleecy white clouds sailing over the clear purple sky; the cool air was delicious after the stuffy closeness of Mrs. White's drawing-room. Suddenly Annie caught hold of Rhoda's arm—"I am afraid there is a crowd coming, Rhoda," she said; and it was true that a sound of many voices and tramping feet came up the lane, and the forerunners of the crowd came into view. "What shall we do, Rhoda? We are a long way from home."

"Walk quietly on, my dear; whatever you do, do not seem to mind," answered Rhoda, with a flushed face. At this moment the coming crowd caught sight of the cousins, and raised a loud shout. "There they are! there's the female candidate!" and with hisses and groans, and only a few shouts of "Shame! shame!" they surrounded the terrified girls.

The crowd was good-humored and noisy; but their jests were very coarse, and the attempts of some rude boys to tear off Annie's veil were received with shouts of laughter. They looked up and down the road—there seemed no prospect of escape; the crowd, also, was

thickening, the rougher part of the town-hall audience having determined to go to Pineapple Cottage and hiss the female candidate. The crowd was in such a humor that a man might easily have taken advantage of it, and probably turned it to his own account; but, as the pressure became greater, the women became more and more frightened; they held each other tightly, their great terror being lest they should be separated.

"Put them on the step! let's hear what they've got to say!" shouted one.

"Give 'em a taste of rotten eggs!" cried another.

"Somers for ever! down with the Rads!"

Suddenly there was a pause in the rush and pressure, and Rhoda looked up with a vague hope of relief. The crowd was opposite Ivy Bank, and Miss Hale was standing on the steps speaking at the top of her voice.

"John! Andrews! Martin! you idiots, what do you mean by this? Don't you know the penalty of rioting at your time of life? Here! stand back! Rubbish and stuff! out of my way!"

The crowd fell back as the gaunt figure of Miss Hale strode through it, and took the hand of the poor little trembling candidate.

"Get out of my way there!" she cried, administering a sharp push to somebody in the way, and she led them straight through into her house; at the door she turned and shook her head at the grinning crowd: "You go home, you double-distilled idiots," she said, "and don't stand gaping there." They obeyed, laughing loudly, and breaking into very discordant publichouse songs.

No sooner was she safe within doors than poor Annie burst into tears, and could only with an effort prevent herself from becoming hysterical; Miss Hale treated her with very calm wisdom, wisely turning her sister out of the room, who considerably added to poor Annie's inclination to laugh by her repeated "hurrahs." Rhoda tried to help, but was unceremoniously pushed out of the way by Miss Hale, who looked at her with such evident animosity, that it required all Rhoda's gratitude not to betray that the dislike was mutual.

When Annie was better, and lying exhausted on the sofa, Miss Hale ordered round her brougham, late as it was, and sent them home, receiving Rhoda's thanks with scant courtesy. Annie would have said something also; but as the slightest

recollection of what had passed made her all but cry again, she only put up her little face to be kissed, and was surprised at the warmth of the embrace she received.

"Hot wine and water, and bed at once, mind," were her parting words to Rhoda, — advice she was glad to follow, as her hands were almost as cold and shaking as Annie's.

CHAPTER VIII.

RHODA and Annie were seated in the hot little drawing-room of Pineapple Cottage, each anxiously bending over a manuscript.

"I feel almost in despair, Rhoda," said Annie piteously. "If I only had the smallest idea what to say!"

"It will come under the influence of excitement, my dear. I can tell you for your encouragement that Scoton says that half the male voters are wild about you, and almost every man we have canvassed personally in the lower town will stand by us."

"What shall I do if — if the Greydons are there?"

"They are not in the least likely to be there, — and if they are, why, have you forgotten your resolution at Bâle? It will be a good opportunity of showing them the stuff we women are made of."

"It is quite true," cried Annie.

"Now, don't interrupt me — there's a dear; but just let me get through my speech, and then I will help you with yours."

"Oh, do you think I might read mine?"

"Certainly not — nobody would believe that it is your own; you must only have notes. Now please be quiet." And they settled anew to their work.

After about ten minutes, during which Annie's brow was furrowed and puckered by anxiety, she wearily rose and looked out of the window. She started back, but not before she was perceived by a passing horseman in the road.

"Rhoda," she faltered, "there is Captain Somers."

"Don't interrupt," said her cousin.

"But he is stopping at the door — he is coming in!"

"Go down to him; don't let him disturb me at this moment," cried Rhoda, abstractedly; and Annie flew down-stairs.

Captain Somers was just about to ring at the half-open door, when he saw Annie at the foot of the staircase.

"Rhoda cannot come," she said; "she is too busy."

Captain Somers threw open the door of

the little dining-room, and making Annie go in first, followed her and shut the door. He took her hand eagerly.

"Now tell me," he said, "are you come down to canvass for Miss Herbert? Is she your relation or sister? Good heavens! what are you here for?"

"Oh, do not be angry!"

"Angry! angry with you! the one in the whole world —"

"Stop, you do not know what you are saying!"

"Miss Herbert — Annie! what do you mean?"

"It is I — I myself, who am the female candidate." Somers dropped her hand and walked off to the window, in a vain effort to conceal the weight of the blow.

"Did you not know? — could you not guess?" began poor Annie.

"Know! guess!" cried he. "Not I — I have been too great a fool! trusted too blindly, been too easy a dupe! Ah, forgive me; I have no right to speak like this."

His tone had become so formal and stiff that Annie felt as if her heart was breaking.

"Why — why did you change your name?" she cried.

"Ah, then, you did not know! You were not really deceiving me? trying to get an unfair start of me?"

"Deceive you!" Annie drew up haughtily.

"I don't know," he said, bitterly; "women have different ways of looking at these things from men; stratagem is more in their line."

"It is not true!" cried Annie, passionately.

"Then why," he cried, almost angrily in his pain — "why did you make me love you? why not have warned me in time, have told me the truth of your holding these miserable opinions that make women make fools of themselves every year?"

"You have no right to speak to me like this!"

"I have a right! If you share our privileges you incur the penalty of being spoken to as equals. My goddess comes down from her pedestal and becomes one of us, and shall be treated accordingly — no longer my mistress, but my opponent."

"Go, Captain Somers! I will not bear this!"

"I will go; but I will not abate one jot of my opposition. I will fight the seat to the utmost of my power. I give you fair

warning. You doubtless consider that it is insulting that I should do so, on the old-fashioned theory that hand-to-hand opposition to a woman is unworthy of a man. Our respective agents show an animosity to each other which I have tried to put a check on. I shall withdraw the check; for when a woman ceases to be womanly, a man must in self-defence treat her as a man."

"You are cruel."

"I have done."

Annie started forward as he left the room, and then throwing herself on the sofa, buried her face in the cushions, and cried as if her heart would break. She thought he was gone, but the sound of her sobs made him leap from his horse and return. In a moment he was kneeling by her side.

"Oh Annie, forgive me! I did not mean it; what shall I do? Annie! look up, my own, my dearest! What a brute I have been!"

"Please go!" she cried, trying to wrench her hand from him.

"Not till you say you have forgiven me — not till you are calm again."

"But don't be so angry," she sobbed.

"Don't you see it is only because I love you so? Oh, can't you give it all up? Can't you see what infernal humbug it all is? You are only fitted to be my own little wife, to be taken care of, and loved and adored. Can't you see it?"

"Oh no! no!" but unconsciously her head was on his shoulder and he was wiping away her tears.

"Give it up, dearest," he said — "give it up for my sake, and let us be happy."

"How can I? I am pledged."

"Confound it all! What could have put such confounded trash into your head?"

"All — all my life — Rhoda —"

"Confound her!"

Annie drew back from him, but looked meekly and deprecatingly in his face.

"Annie, don't you see this parts us forever, if you carry it on? Can you not withdraw? Plead illness, any lie."

"It would be dishonorable."

"Good heavens!"

"There is only one chance!" cried Annie. "Oh, Captain Somers, please! please! please canvass well! You do not know how dreadfully successful we are! how close it will be! do, if you care for me at all — please, beat me now!"

"My poor little darling!"

"If you knew how I dread success."

"And you shall not be successful if I

can help it!" he cried, jumping up. "Good-bye, darling! What? what do you say? I can't hear."

"Please," she whispered, "don't go near the town-hall to-night."

"All right," he answered, and left her with a perfect storm of conflicting emotions in his breast; but with a fixed determination to carry the seat *côte qu'il coûte*.

CHAPTER IX.

It was eight o'clock. The town-hall was densely crowded with both men and women, when the female candidate and Rhoda Langdon appeared upon the platform. Rhoda looked flushed and handsome, and threw a glance of self-confidence at her supporters. Annie, with a beating heart, could see only the swaying mass of people, and hear their loud greetings, as if in a terrible nightmare. The moment was come that she had dreaded so much. Rhoda was the first to speak. All nervousness left her when she stood before her audience, and a moment of extreme fluency came upon her as she explained her views and the supposed opinions of her cousin, in language which, if rather too flowery, was fluent and grammatical. She was much applauded, and allowed to speak almost without interruption, a few vehement cries of "No, no!" being hissed down at once.

At last the moment came, and Annie stood before the crowd. The color rushed to her cheeks, burning with the sense that hundreds of eyes were fixed upon her. Her eyes were bent on the ground; some of her fair hair had become loose, and a large soft curl of it fell on her breast. Shouts of applause greeted her, and seemed as if they never would cease. At last silence was restored, and Annie began to speak.

Men spoke of her afterwards with tears in their eyes, such was the power she exercised. And yet it was a speech which made her keen supporters on the platform twist and fidget, and even grind their teeth with vexation. She threw herself on the mercy of her audience; she pleaded with them that it was possible to try and do good to their country, to be ambitious and anxious to avail herself of talents granted, and yet with it all to be womanly. A few people cried "Politics, politics!" and then she seemed to falter a little, but recovered herself, confessing that she knew but little of politics, but that she would always do what they wished, — which was received with some

laughter but much applause; and it ended much too soon. Annie had not spoken ten minutes, but she thought it was an hour.

"This must have ruined our cause," said Scoton, in a low tone of extreme vexation, to Rhoda.

"It is uncommonly popular," said a red-faced young lawyer, who was one of the committee. Rhoda could not speak; she felt mortified and angry with herself for compelling one so unfit as Annie was to stand; but the poor child came to her so white and trembling that she could only make the best of it, and try to encourage her.

When they left the town-hall, they were escorted home in their fly by large numbers shouting and hallooing, to Annie's terror and distress.

Eagerly the next day they scanned the report of the speeches in the local paper. Annie was much disturbed at the shortness and want of consecutiveness of hers, and rather astonished at the praise it received; undeveloped political capacity—very great promise—the genuine modesty of a high-class intellect,—every possible compliment was lavished upon it. Rhoda's also received its share of praise, and to her great satisfaction it read better even than it sounded; and various little mistakes and errors in the wording of which she had been conscious at the time, had got themselves into order under the able pen of the sympathizing reporter. The Conservative paper came out later in the day, and was looked at with even more anxiety. Again Annie found herself praised, but in a way which made Rhoda bite her lips and stamp about the room.

Her own speech was the first reported and commented on. "It was admirable," wrote the critic. "A more fluent flow of diluted twaddle has not been heard in this town-hall within the memory of man; every substantive possessing a womanly assortment of innumerable adjectives—every sentence containing at least one parenthesis. Three perorations, and one passionate personal appeal. The political part of the speech was in much the same strain as one hears everywhere nowadays—bombastic assertions of the strength of woman, powers of endurance, concentration, etc., etc.,—as if any reasonable man could doubt their powers of endurance! From Miss Langdon we had expected more, perhaps—some originality of thought and design; but this friend of our interesting opponent, finding

nothing new to say, could only fall back on the old-fashioned woman's rights—gave us a passionate, retrospective sketch of all that has been done since the first grant of female suffrage,—a vehement appeal to us not to stop in the course we are running, but to emancipate all our domestic slaves—to elevate them from their lower sphere—to take upon ourselves, being of more earthly and gross material, the menial offices which are dragging down from its intellectual height the 'lofty, high, noble-aspiring female nature,'—and so on *ad infinitum*. We turn with a sense of freshness and pleasure to the infinitely silly speech of our female candidate. Such strong language is incompatible with pale cheeks and frightened blue eyes; and the applause was too much even for this powerful specimen of our future rulers; for she was observed to tremble very much, and even to catch at the gown which, notwithstanding the femininity of so doing, Miss Langdon still wears. And when at length the female candidate was seen to speak, though the silence was exceptional, no one could hear a word. At last, when the words became audible, they proved to be of a most tender pleading nature: 'Electors of Loughtonstone! by all means return your female candidate; she has pledged herself to obey your wishes and forward every measure every one of you shall desire to have forwarded.' We will push comment no further—we will be generous; for this formidable antagonist, this matured Radical, we learn, is that creature of all others to be treated with tenderness and consideration,—an artless, motherless girl!"

"This is the worst of all!" cried Rhoda, scarlet with indignation. "They could not have contrived to insult us more. I wish I was in the town-hall at this moment. Oh, Annie, after all we have done together, it is so hard that you remain just the same!"

"I cannot help it," said Annie, ruefully. "No—I suppose some people were made so; but if it had only been my own cause I was pleading!"

"Ah, Rhoda! if you only would have consented to do it instead of me."

"Yes, I see it now," she said, sadly. "But how could I, without any money of my own? and I thought it such a privilege to stand that it would have been impossible for me to have done it instead of you; but I am sorry I did not yield now."

"It was too generous of you, dear," said Annie, tenderly; "for you know well

enough that my money is just as much yours as mine. Do you honestly think that we shall win?"

"I don't know—I can't say," answered Rhoda, springing up; "but we must do our best, and not waste time."

"What are you going to do now?"

"I am going down to Pie Corner to have one more trial at old Watkins."

"Shall I come with you?"

"If you like; but don't overtire yourself."

Just as the cousins prepared for their walk, a ring at the bell announced a visitor; and the maid came up with a message to say that Mrs. Brand, of the Castle lodge, would be glad to speak to the ladies.

She was invited into the sitting-room, and the cousins went down. Mrs. Brand rose and curtsied as they came in; she had a small parcel in her hand; but as she was about to speak, she stopped suddenly, and exclaimed—

"Bless my stars, miss, but ye're looking ill!" A pang of terror crossed Rhoda's heart, as she glanced at Annie, and saw her little face looking so pale and thin, and large eyes quite hollow from over-fatigue.

"I am quite well, thanks, Mrs. Brand, only rather tired; I am so glad that you have come to see us."

"Well, miss, I *did* make so bold, and that's the truth; but you were so kind that day, that I couldn't bear to think as you could get into trouble, and all along of me."

"Into trouble? please explain."

"Well, miss, do you mind that there bottle of cod-liver oil as you sent my Sairy Anne, and a deal of good it's done her it has, and a deal more it would have done her if I'd ha' let her drink it up; but, says I, no one as has done me a kindness shall repent it."

"I am glad it has done her good," said Annie.

"And here it is, miss, and sorry I am that ever she took a drop of it. 'Twas only yesterday, you see, miss, and I was doing a bit o' washing, not regular-like, but a bit of Miss Amy's nonsense lace things that nothing'll please her but I'll wash 'em for her, for, says she, nobody washes 'em like you; which it is natural, for they don't take the pains to pin them out, which it takes a light hand, and none of your wringing of 'em dry. I was like here with my tub, and Sairy Anne she was sewing in the corner, when the colonel he comes in to speak with me, and me with my sleeves turned up, and a apron on

which I'd not have worn to be seen in. Says he, 'Mrs. Brand, that there child looks better.' 'She do, sir,' says I; 'and it be all along of that cod-liver oil as the female candlegate gave me.' 'Ha!' says somebody outside, and I ups and sees Mr. Jones a-standing on my white step a-writing something in a little book. 'Come, come, Jones,' says the colonel, and them's his very words—'that's rather hard lines.' 'Not it, colonel,' says he, and never so much as scrapes his shoes. 'It's as pretty a piece of bribery and corruption as I've known.' 'That being the case,' says I, 'I will take back the bottle at once, for them two ladies were as good to me as if they'd known me all my life, and they shan't get into trouble along o' me;' and I ups and takes down the bottle then and there; and the colonel says, 'That's right, Mrs. Brand;' but Mr. Jones he only laughed."

"Thank you, Mrs. Brand," cried Rhoda, "you may have done us great service."

"Not at all, miss; and I'm sure if it is corruption it has done my child a sight of good, and very much obliged I am."

"We shall scarcely escape, Annie," said Rhoda; "the regulations about bribery are so stringent now that one cannot be too careful."

"Nice, kind woman," said Annie. "How hot and flurried she seemed! But do you really think it was of consequence?"

"It might have unseated you," answered Rhoda, solemnly.

CHAPTER X.

It was evening when the brougham drove up to the door of Greydon Castle, and all its inhabitants rushed from the dining-room into the hall to receive a new arrival from the station. The colonel, still waving his dinner-napkin, could not contain his pleasure.

"My dear Burnley, this is too good of you; and how are you, old fellow? Come in at once; we had just sat down to dinner."

"How are you, dear old boy?" from Captain Somers.

"Better, better, thanks; don't let me keep you from your dinner. Somers, you look fagged; I have a hundred questions to ask. How do you do, Alice?—Amy, I think you have grown."

"In six months?" laughed Amy.

The soup and fish were removed before the all-important question was asked.

"Well, Somers, and how go the chances?"

The colonel's brow grew black, Som-

ers's white. One of the girls volunteered a slight hint to her old friend under the table, which he obstinately would not take.

"Come, tell me all about it. What is the formidable antagonist like?"

"You know Miss Annie Herbert?" said the colonel, shortly.

"Whew!" Burnley's face expressed his extreme astonishment. "And how about the birds this year?" he said, dexterously changing the subject.

"Capital! large and strong, and heaps of them!"

"That's all right."

Somehow the conversation flagged till the three men were alone in the smoking-room, when Somers said, with a would-be lightness of tone, —

"My father refuses to believe in my description of Miss Herbert, Burnley."

"A girl who allows herself to be put in such a position must either be brazen-faced or a fool."

"She is only a child," said Burnley.

"Only a child! but what sort of a child? so practised in the arts of conquest that there is scarcely a man or a fool whom she has canvassed who is not mad about her. Child indeed!"

"Really!"

"She is irresistible, it seems. Even Hugh is a fool about her. I always thought it was the dark one who was the candidate; but it turns out that this helpless-looking schoolgirl is the more artful of the two."

"Bless my soul, Greydon! she is the most artless, ill-instructed, sweetest, and prettiest little bit of humanity I ever came across."

"So she has made a fool of you also."

"Indeed she has; but I certainly had no expectation of finding her poaching on your manors, John. What day is fixed for the poll?"

"Actually to-morrow."

"By Jove! I am only just in time. What shall you do if your borough returns a female member, Greydon?" he said, mischievously.

The colonel growled ominously.

"Poor child!" continued Burnley; "I am uncommonly sorry. Of course, it is all done by that silly, ambitious woman. She must have found out the bitterness of it by this time. Have you read the poor child's speech, Greydon?"

"Not I."

"But you should have done so. It would have had double interest for me if I had known that it was my dear little friend

uttering all that nonsense. No wonder it was silly!"

"She is trading on her irresistible beauty!"

"She is certainly lovely. One of those sweet womanly faces that always appear to be pleading for forbearance. That woman had no right to bring her forward. I should as soon have expected to see one of your own girls addressing a constituency, Greydon. Besides, the poor child has no mother."

As Somers went up to bed, he grasped his friend's hand, and whispered, rather huskily, —

"Thanks, old fellow!"

The great day came at last. Seven o'clock in the evening was said to be the time fixed for the declaration of the poll.

What a long day of extreme anxiety it seemed! Amy and Alice could settle to nothing. The few words and occasional glimpses of their brother or any of his fellow-workers were received with thankfulness. In vain the colonel boasted of his certainty; he was as pale with anxiety as any of the others, and was always flitting nervously in and out of the windows. He refused to go to the town at all. At one o'clock a note was put into his hand from his son. "Do not expect me; matters looking very serious." And the whole party felt as if this was becoming unendurable. Before long Burnley was obliged to lie down in a darkened room, being threatened by one of his attacks of pain; but he would only consent to do so on condition of a promise that every note or message should be brought to him at once.

Two o'clock luncheon was prepared, and they all made a pretence of eating; but it was taken away almost untouched. The very dogs had an air of uneasiness, and started and barked on the slightest provocation.

At half past three, Captain Somers's groom came up with a brief note. "The voters coming up very slowly; a little more hopeful." Then the old colonel took his hat and cane, and walked off to the town.

From one polling-place to another Annie Herbert and Rhoda went with Mr. Scoton and one or two others, and wherever they went were followed by a noisy shouting crowd. As the day passed on, Rhoda grew frightened at Annie's white face.

"You will never be able to go on unless you have some rest," she said at last. "I

shall take you home and come back myself."

"But I do not like to leave you, Rhoda."

"Never mind," said her cousin, authoritatively. "Remember you will have to speak afterwards, and must be prepared. Let us go at once."

They were, however, delayed for half an hour by a message from Scoton, and obliged to hurry off to another polling-place. Then Rhoda drew Annie's arm through hers determinately, and walked off with her to Pineapple Cottage. Unfortunately, as they passed, the crowd gathered round them unpleasantly, shouting loudly, and seemed determined to follow them. It was a very hot day in September, and Annie had to summon all her resolution to enable her to get on. The crowd increased as they drew near home; and they could see numbers of persons standing round their door in the distance. Even Rhoda was dismayed. "I wish we had not left the gentlemen," she said, nervously. Colonel Greydon, coming down the road, saw the two frightened and tired faces in the midst of their tormentors. Painful doubts seized on him as to what he should do — the little face of the female candidate looked so pale and forlorn; but the other looked plucky enough. There was some way yet to reach their house, he saw, and the road was lined with people.

At this moment a man considerably the worse for good cheer reeled up to Annie, and trying to chuck her under the chin, shouted out, "I'll vote for you; devil take me if I don't!" Here the colonel broke through the crowd and pushed him aside. He offered Annie his arm, with his head averted.

"Do you want to get home, madam?" he said, grimly, to Rhoda.

"Thank you. I wished my cousin to get home; but I am afraid it will be difficult," she answered not knowing who her helper could be. "I do not know a single quiet place where I can place her."

"Take her into Greydon Forest; no one will venture there."

"But I have no permission."

"Never mind, I give you permission; nobody will interfere with you."

"A thousand thanks," said Rhoda, wonderingly; but he was hurrying them through the crowd, who fell back respectfully when they saw him.

He took them through the gates, turned sharply off to the right, and after about two minutes' walk in the delicious, cool wood, showed them an open space with a rustic seat under a tree.

"I am so much obliged to you," said Annie; and the colonel, lifting his hat, walked away.

"This is a comfort," said Rhoda. "You will get quite recruited here, darling; look, lean back, or sit on this beautiful green turf, and lean against the tree."

"Rhoda, must you go?"

"Not just yet. Are you very tired, dear?"

"Dreadfully tired, and I feel so odd."

"Lean back on my shoulder; it is only the heat — perhaps you might even go to sleep. Annie! Annie!"

Annie had fainted away.

Rhoda laid her gently on the grass in terror, fanned her and called to her to no purpose; then suddenly remembering that the lodge-gate was not far off, rushed off for a glass of water.

It so happened that Colonel Greydon, after walking away a few steps, could not resist the looks of the female candidate; and much ashamed of himself, walked back, went into the open window of his own dining-room, secured a glass of sherry, and returned to the spot where he had left his son's opponents. A curious sight met his eyes. The sun was glinting down through thick foliage, the green moss was like emerald velvet, the white stems of the great beech-tree glimmering in the checkered light, and on the ground lay the very wood-nymph fitted to inhabit these glades; her hat had fallen off, and she lay flat on the ground, her hands unclosed beside her, her fair hair loosened by the fall, and straying unheeded over the lovely face, as still and pale as marble.

In a moment the old colonel was on his knees; she was raised in his arms, the wine pressed to her lips — but still she did not move; he forced a few drops through her lips.

When Rhoda came back with the water, followed by Mrs. Brand, she was too much frightened even to be astonished. The colonel seized it from her, soaking his handkerchief and dashing it plentifully over her face and hands — her pretty white gown was soaked with it.

At last there came a little shudder, and she opened her eyes and sighed —

"Rhoda!"

"I am here, dear, look up! You are better."

"Where are we?"

"In the wood, out of doors; can you sit up?"

Colonel Greydon drew back, and Annie raised herself up; she saw him suddenly, and said, —

"I beg your pardon."

"No, no, my dear; you keep quite still, and when you are better we will go."

"Thanks," and Annie shut her eyes again in bewilderment.

"We must take her to the Castle," said Colonel Greydon to Rhoda, "as soon as she can walk."

"We are almost as near home," said she, doubtfully.

"But at home she will be subjected to all the row and noise this business has brought upon you: it is no use taking her there."

"Thank you, it is quite true; Annie, try and drink this wine—that's right, now keep still again. Are you sure you do not mind having her at the Castle?" she asked, meekly.

"Are you better now, Miss Herbert?" said the colonel, cheerily, giving Rhoda no answer.

"Yes, I am well now, thanks—Rhoda, I can go now."

They helped her to rise to her feet, when, a little to Rhoda's discomfiture, the colonel signed to Mrs. Brand to put her arm round her on one side, and drew her hand through his arm on the other.

"I will take her home, madam," he said; "and I hope you will trust her to me, for I am sure you must be anxious to return to the battle."

Rhoda was very anxious to return; but she did not like to be disposed of with so little ceremony, so she stopped to speak to Annie.

"Tell me, dear, shall you be able to get on? only say whether you mind my going, and nothing will make me leave you."

In answer, Annie looked up into the somewhat anxious face of the old colonel with such a look of trustfulness and confidence, that he involuntarily smiled with pleasure.

"Thank you, Rhoda; I would rather that you went."

The colonel and Mrs. Brand, between them, led Annie to the Castle, and Rhoda returned breathless with speed to the town.

All the afternoon Annie lay on the drawing-room sofa, feeling still very odd and faint; and wondering whether what she saw was only a dream, or whether she really was lying on chintz cushions, with a red velvet table near her covered with tea, and bread, and butter, and two pretty girls sitting by it; and, strangest of all, the familiar face of Burnley leaning back in a deep, low arm-chair. Nobody actually spoke to her, but they were talking eager-

ly to themselves, and now and then the butler came in with a mysterious face, and said something in a low voice.

"Give me a cup of tea, girls," said a cheery voice, as the colonel stepped into the room from outside.

"Can you possibly drink it, papa," said Amy, pouring it out, "at this supreme moment?"

"It is past seven," he answered, looking at his watch.

"Seven! Is it seven?" cried Annie, starting up and pushing back her chair.

"Yes, my dear; but lie down again," said the old colonel, patting her gently.

"There is no news yet."

"But how soon? when will it come?" she panted.

"I don't know. We must be patient. Ha! there is the groom! Here, Richard, here! what news? make haste!"

The whole party rushed together to the window; Annie tried to rise, but only staggered back to the sofa. Colonel Greydon's voice read out the news—Somers, 680; Herbert, 510. The room seemed to reel round, to be twisting and turning; she was conscious of people round her, of being held in kind arms, and supported; and then once more all became a blank.

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For about a week Annie Herbert was too unwell to leave her room; but everything that the most affectionate care could do for her was done: Amy and Alice spent hours by her bedside, cheering her overstrained spirits and amusing her. It was with an effort that the poor child made up her mind to leave her room: the thought of facing the whole family was terrible to her—and especially without Rhoda; for her cousin, with great good taste, had seen what a restraint her presence was to the family; and knowing that Annie's illness was not serious, and that she was in good hands, she left her, and returned to London two days after the election. In the bitterness of defeat, she foretold what the end would be.

At last Annie came down-stairs, and had she been a child of the house, she could not have been received more warmly; the old colonel was attentive to her in especial—the girls could not make enough of her.

She was lying on the sofa one day by the open window, when she perceived Colonel Greydon and Captain Somers walking together in the forest. At the window they parted, and Captain Somers came in alone.

He came and knelt beside her, and took both her hands and said, —

"Annie, my father consents; and you are to be my little wife after all."

A few days' post brought a letter from Rhoda, which Annie brought down, half laughing, half crying, to read. Rhoda had pledged herself to stand for Kingtonville, a small town, whose newly-elected Radical member had been unseated for bribery — and all the world pronounced her to be certain of success.

From Macmillan's Magazine.

ORDEALS AND OATHS.

In primitive stages of society, the clanish life of rude tribes may well have been more favorable to frank and truthful relations between man and man than our wider and looser social intercourse can be. Yet one can see from the habits of modern savages that already in early savage times society was setting itself to take measures against men who broke faith to save themselves from harm or to gain some coveted good. At the stage of civilization where social order was becoming regular and settled, the wise men turned their minds to devise guarantees stronger than mere yes and no. Thus the ordeal and the oath were introduced, that wrong-doing should not be concealed or denied, that unrighteous claims should not be backed by false witness, and that covenants made should not be broken.

The principles on which these ordeals and oaths were invented and developed may to this day be plainly made out. It is evident that the matter was referred to the two intellectual orders of early times, the magicians and the priests. Each advised after the manner of his own profession. The magician said, "With my symbols and charms I will try the accused, and bind the witness and the promiser." The priest said, "I will call upon my spirits, and they shall find out the hidden thing, and punish the lie and the broken vow." Now magic and religion are separate in their nature and origin. *Magic* is based on a delusive tendency arising out of the association of ideas, namely, the tendency to believe that things which are ideally connected in our minds must therefore be really connected in the outer world. *Religion* is based on the doctrine of spiritual beings, souls, demons, or deities, who take cognizance of men and interpose in their affairs. It is need-

ful to keep this absolute distinction clear in our minds, for on it depends our finding our mental way through a set of complicated proceedings, in which magical and religious elements have become mixed in the most intricate manner. Well they might, considering how commonly the professions of sorcerer and priest have overlapped, so as even to be combined in one and the same person. But it seems from a general survey of the facts of ordeals and oaths, that on the whole the magical element in them is earliest and underlying, while the religious element is apt to come in later in history, often only taking up and consecrating some old magical process.

In the series of instances to be brought into view, this blending of the religious with the magical element will be repeatedly observable. It will be seen also that the ordeal and the oath are not only allied in their fundamental principles, but that they continually run into one another in their use. Oaths, we shall see, may be made to act as ordeals, and ordeals are brought in as tests of oaths. While recognizing this close connection, it will be convenient to divide the two and take them in order according to their practical application, ordeals being proceedings for the discovery of wrong-doers, while oaths are of the nature of declarations or undertakings.

The association of ideas which serves as a magical basis for an ordeal is quite childish in its simplicity. Suppose it has to be decided which of two men has acted wrongfully, and appeal is had to the ordeal. There being no evidence on the real issue, a fanciful issue is taken instead, which can be settled, and the association of ideas does the rest. Thus in Borneo, when two Dayaks have to decide which is in the right, they have two equal lumps of salt given them to drop together into water, and the one whose lump is gone first is in the wrong. Or they put two live shell-fish on a plate, one for each disputant, and squeeze lime-juice over them, the verdict being given according to which man's champion mollusc moves first. This reasoning is such as any child can enter into. Among the Sandwich Islanders, again, when a thief had to be detected, the priest would consecrate a dish of water, and the suspected persons, one by one, held their hands over it, till the approach of the guilty was known by the water trembling. Here the connection of ideas is plain. But we may see it somewhat more fully thought out in Europe, where the old notion remains on record that the execu-

tioner's sword will tremble when a thief draws near, and even utter a dull clang at the approach of a murderer.

Starting with the magical ordeal, we have next to notice how the religious element is imported into it. Take the ordeal of the balance, well known to Hindu law. A rude pair of scales is set up with its wooden scale-beam supported on posts; the accused is put in one scale, and stones and sand in the other to counterpoise him; then he is taken out, to be put in again after the balance has been called upon to show his guilt by letting him go down, or his innocence by raising him up. This is pure magic, the ideal weight of guilt being by mere absurd association of ideas transferred to material weight in a pair of scales. In this process no religious act is essential, but in practice it is introduced by prayers and sacrifices, and a sacred formula appealing to the great gods who know the walk of men, so that it is considered to be by their divine aid that the accused rises or falls at once in material fact and moral metaphor. If he either goes fairly up or down the case is clear. But a difficulty arises if the accused happens to weigh the same as he did five minutes before, so nearly at least as can be detected by a pair of heavy wooden scales which would hardly turn within an ounce or two. This embarrassing possibility has in fact perplexed the Hindu lawyers not a little. One learned pundit says, He is guilty, unless he goes right up! A second suggests, Weigh him again! A third distinguishes with subtlety, If he weighs the same, he is guilty, but not so guilty as if he had gone right down! The one only interpretation that never occurs to any of them, is that sin may be an imponderable. We may smile at the Hindu way of striking a moral balance, but it should be remembered that a similar practice, probably a survival from the same original Aryan rite, was kept up in England within the last century. In 1759, near Aylesbury, a woman who could not get her spinning-wheel to go round, and naturally concluded that it had been bewitched, charged one Susannah Haynokes with being the witch. At this Susannah's husband was indignant, and demanded that his wife should be allowed to clear herself by the customary ordeal of weighing. So they took her to the parish church, stripped her to her undergarments, and weighed her against the church Bible; she outweighed it, and went home in triumph. Here the metaphor of weighing is worked in the opposite way to

that in India, but it is quite as intelligible, and not a whit the worse for practical purposes. For yet another case, how an old magical process may be afterwards transformed by bringing in the religious sanction, we may look at the ancient classic sieve and shears, the sieve being suspended by sticking the points of the open shears into the rim, and the handles of the shears balanced on the forefingers of the holders. To discover a thief, or a lover, all that was required was to call over all suspected names, till the instrument turned at the right one. In the course of history, this childish divining-ordeal came to be Christianized into the key and Bible, the key of course to open the secret, the Bible to supply the test of truth. For a thief-ordeal, the proper mode is to tie in the key at the verse of the fiftieth Psalm, "When thou sawest a thief, then thou consentedst with him;" and then when the names are called over, at the name of the guilty one the instrument makes its sign by swerving or turning in the holders' hands. This is interesting as being almost the only ordeal which survives in common use in England; it may be met with in many an out-of-the-way farmhouse. It is some years since English rustics have dared to "swim" a witch, that is, to put in practice the ancient water-ordeal, which our folk-lore remembers in its most archaic Aryan form. Its essential principle is as plainly magical as any; the water, being set to make the trial, shows its decision by rejecting the guilty, who accordingly comes up to the surface. Our ancestors, who did not seize the distinction between weight and specific gravity, used to wonder at the supernatural power with which the water would heave up a wicked fellow, even if he weighed sixteen stone.

Mediæval ordeals, by water or fire, by touch of the corpse, or by wager of battle have fallen to mere curiosities of literature, and it is needless to dwell here on their well-known picturesque details, or to repeat the liturgies of prayer or malediction said or sung by the consecrating priests. It is not by such accompanying formulas, but by the intention of the act itself, that we must estimate the real position of the religious element in it. Nowhere is this so strong as in what may be called the ordeal by miracle, where the innocent by divine help walks over the nine red-hot ploughshares, or carries the red-hot iron bar in his hand, or drinks a dose of deadly poison and is none the worse for it; or, in the opposite way,

where the draught of harmless water, cursed or consecrated by the priests, will bring within a few days dire disease on him or her who, being guilty, has dared to drink of it.

Looking at the subject from the statesman's point of view, the survey of the ordeals of all nations and ages enables us to judge with some certainty what their practical effect has been for evil or good. Their basis being mere delusive imagination, when honestly administered their being right or wrong has been matter of mere accident. It would, however, be a mistake to suppose that fair-play ever generally prevailed in the administration of ordeals. As is well known, they have always been engines of political power in the hands of unscrupulous priests and chiefs. Often it was unnecessary even to cheat, when the arbiter had it at his pleasure to administer either a harmless ordeal like drinking cursed water, or a deadly ordeal by a dose of aconite or physostigma. When it comes to sheer cheating, nothing can be more atrocious than this poison-ordeal. In West Africa, where the Calabar bean is used, the administrators can give the accused a dose which will make him sick, and so prove his innocence, or they can give him enough to prove him guilty, and murder him in the very act of proof; when we consider that over a great part of that great continent this and similar drugs usually determine the destiny of people inconvenient to the fetish-man and the chief—the constituted authorities of Church and State—we see before us one efficient cause of the unprogressive character of African society. The famed ordeal by red-hot iron, also, has been a palpable swindle in the hands of the authorities. In India and Arabia the test is to lick the iron, which will burn the guilty tongue but not the innocent. Now, no doubt the judges know the secret that innocent and guilty alike can lick a white-hot iron with impunity, as any blacksmith will do, and as I have done myself, the layer of vapour in a spheroidal state preventing any chemical contact with the skin. As for the walking over red-hot ploughshares, or carrying a red-hot iron bar three paces in the palm of the hand, its fraudulent nature fits with the fact that the ecclesiastics who administered it took their precautions against close approach of spectators much more carefully than the jugglers do who handle the red-hot bars and walk over the ploughshares nowadays; and, moreover, any list of cases will show how inevitably the

friend of the Church got off, while the man on the wrong side was sure to "lose his cause and burn his fingers." Remembering how Queen Emma in the story, with uplifted eyes walked over the ploughshares without knowing it, and then asked when the trial was to begin, and how, after this triumphant issue, one-and-twenty manors were settled on the bishopric and church of Winchester, it may be inferred with some probability that in such cases the glowing ploughshares glowed with nothing more dangerous than daubs of red paint.

Almost the only effect of ordeals which can be looked upon as beneficial to society, is that the belief in their efficacy has done something to deter the credulous from crime, and still more often has led the guilty to betray himself by his own terrified imagination. Visitors to Rome know the great round marble mask called the *Bocca della Verità*. It is but the sink of an old drain; but many a frightened knave has shrunk from the test of putting his hand into its open "mouth of truth" and taking oath of his innocence, lest it should really close on him as tradition says it does on the forsworn. The ordeal by the mouthful of food is still popular in southern Asia for its practical effectiveness: the thief in the household, his mouth dry with nervous terror, fails to masticate or swallow fairly the grains of rice. So in old England, the culprit may have failed to swallow the consecrated *cor-sued* or trial-slice of bread or cheese; it stuck in his throat, as in Earl Godwin's in the story. To this day the formula, "May this mouthful choke me if I am not speaking truth!" keeps up the memory of the official ordeal. Not less effective is the ordeal by curse still used in Russia to detect a thief. The *babushka*, or local witch, stands with a vessel of water before her in the midst of the assembled household, and makes bread pills to drop in, saying to each in order, "Ivan Ivanoff, if you are guilty, as this ball falls to the bottom, so your soul will fall into hell." But this is more than any common Russian will face, and the rule is that the culprit confesses at sight. This is the best that can be said for ordeals. Under their most favorable aspect, they are useful delusions or pious frauds. At worst they are those wickedest of human deeds, crimes disguised behind the mask of justice. Shall we wonder that the world, slowly trying its institutions by the experience of ages, has at last come to the stage of casting out the judicial ordeal;

or shall we rather wonder at the constitution of the human mind, which for so many ages has set up the creations of delusive fancy to hold sway over a world of facts?

From the ordeal we pass to the oath. The oath, for purposes of classification, may be best defined as an asseveration made under superhuman penalty, such penalty being (as in the ordeal) either magical or religious in its nature, or both combined. Here, then, we distinguish the oath from the mere declaration, or promise, or covenant, however formal. For example, the covenant by grasping hands is not in itself an oath, nor is even that widespread ancient ceremony of entering into the bond of brotherhood by the two parties mixing drops of their blood, or tasting each other's. This latter rite, though often called an oath, can under this definition be only reckoned as a solemn compact. But when a Galla of Abyssinia sits down over a pit covered over with a hide, imprecating that he may fall into a pit, if he breaks his word, or when in our police-courts we make a Chinaman swear by taking an earthen saucer and breaking it on the rail in front of the witness-box, signifying as the interpreter then puts it in words, "If you do not tell the truth, your soul will be cracked like this saucer," we have here two full oaths, of which the penalty, magical or religious, is shown in pantomime before us. By the way, the English judges who authorized this last sensational ceremony must have believed that they were calling on a Chinaman to take a judicial oath after the manner of his own country; but they acted under a mistake, for in fact the Chinese use no oaths at all in their law-courts. Now we have to distinguish these real oaths from mere asseverations, in which emphatic terms, or descriptive gestures are introduced merely for the purpose of showing the strength of resolve in the declarer's mind. Where, then, does the difference lie between the two? It is to be found in the incurring of supernatural penalty. There would be no difficulty at all in clearing up the question, were it not that theologians have set up a distinction between oaths of imprecation and oaths of witness. Such subtleties, however, looked at from a practical point of view, are seen to be casuistic cobwebs which a touch of the rough broom of common sense will sweep away. The practical question is this: does the swearer mean that by going through the ceremony he brings on himself, if he breaks faith,

some special magic harm, or divine displeasure and punishment? If so, the oath is practically imprecatory; if not, it is futile, wanting the very sanction which gives it legal value. It does not matter whether the imprecation is stated, or only implied. When a Bedouin picks up a straw, and swears by him who made it grow and wither, there is no need to accompany this with a homily on the fate of the perjured. This reticence is so usual in the world, that as often as not we have to go outside the actual formula and ceremony to learn what their full intention is.

Let us now examine some typical forms of oath. The rude natives of New Guinea swear by the sun, or by a certain mountain, or by a weapon, that the sun may burn them, or the mountain crush them, or the weapon wound them, if they lie. The even ruder savages of the Brazilian forests, to confirm their words, raise the hand over the head or thrust it into their hair, or they will touch the points of their weapons. These two accounts of savage ceremony introduce us to customs well-known to nations of higher culture. The raising of the hand towards the sky seems to mean here what it does elsewhere. It is in gesture calling on the heaven-god to smite the perjurer with his thunderbolt. The touching of the head, again, carries its meaning among these Brazilians, almost as plainly as in Africa, where we find men swearing by their heads or limbs, in the belief that they would wither if forsworn; or as when among the Old Prussians a man would lay his right hand on his own neck, and his left on the holy oak, saying: "May Perkun (the thunder-god) destroy me!" As to swearing by weapons, another graphic instance of its original meaning comes from Aracan, where the witness swearing to speak the truth takes in his hand a musket, a sword, a spear, a tiger's tusk, a crocodile's tooth, and a thunderbolt (that is, of course, a stone celt). The oath by the weapon not only lasted on through classic ages, but remained so common in Christendom, that it was expressly forbidden by a synod; even in the seventeenth century, to swear on the sword (like Hamlet's friends in the ghost-scene) was still a legal oath in Holstein. As for the holding up the hand to invoke the personal divine sky, the successor of this primitive gesture remains to this day among the chief acts in the solemn oaths of European nations.

It could scarcely be shown more clearly with what childlike imagination the savage conceives that a symbolic action, such as

touching his head or his spear, will somehow pass into reality. In connection with this group of oaths, we can carry yet a step further the illustration of the way men's minds work in this primitive stage of association of ideas. One of the accounts from New Guinea is that the swearer, holding up an arrow, calls on heaven to punish him if he lies; but by turning the arrow the other way, the oath can be neutralized. This is magic all over. What one symbol can do, the reverse symbol can undo. True to the laws of primitive magical reasoning, uncultured men elsewhere still carry on the symbolic reversal of their oaths. An Abyssinian chief, who had sworn an oath he disliked, has been seen to scrape it off his tongue and spit it out. There are still places in Germany where the false witness reckons to escape the spiritual consequences of perjury by crooking one finger, to make it, I suppose, not a straight but a crooked oath, or he puts his left hand to his side to neutralize what the right hand is doing. Here is the idea of our "over the left"; but so far as I know this has come down with us to mere schoolboy's shuffling.

It has just been noticed that the arsenal of deadly weapons by which the natives of Aracan swear, includes a tiger's tusk and a crocodile's tooth. This leads us to a group of instructive rites belonging to central and north Asia. Probably to this day, there may be seen in Russian law-courts in Siberia the oath on the bear's head. When an Ostyak is to be sworn, a bear's head is brought into court, and the man makes believe to bite at it, calling on the bear to devour him in like manner if he does not tell the truth. Now the meaning of this act goes beyond magic and into religion, for we are here in the region of bear-worship, among people who believe that this wise and divine beast knows what goes on, and will come and punish them. Nor need one wonder at this, for the idea that the bear will hear and come if called on is familiar to German mythology. I was interested to find it still in survival in Switzerland a few years ago, when a peasant woman, whom a mischievous little English boy had irritated beyond endurance, pronounced the ancient awful imprecation on him, "The bear take thee!" (*Der Bär nimm dich!*) Among the hill-tribes of India a tiger's skin is sworn on in the same sense as the bear's head among the Ostyaks. Rivers, again, which to the savage and barbarian are intelligent and personal divinities, are sworn by in strong belief that their waters

will punish him who takes their name in vain. We can understand why Homeric heroes swore by the rivers, when we hear still among Hindus how the sacred Ganges will take vengeance sure and terrible on the children of the perjurer. It is with the same personification, the same fear of impending chastisement from the outraged deity that savage and barbaric men have sworn by sky or sun. Thus the Huron Indian would say in making solemn promise: "Heaven hears what we do this day!" and the Tunguz, brandishing a knife before the sun, would say: "If I lie, may the sun plunge sickness into my entrails like this knife." We have but to rise one stage higher in religious ideas to reach the type of the famous Roman oaths by Jupiter, the heaven-god. He who swore held in his hand a stone, praying that, if he knowingly deceived, others might be safe in their countries and laws, their holy places and their tombs, but he alone might be cast out, as this stone now—and he flung it from him. Even more impressive was the great treaty-oath where the *pater patratus*, holding the sacred flint that symbolized the thunderbolt, called on Jove that if by public counsel or wicked fraud the Romans should break the treaty first—"In that day, O Jove, smite thou the Roman people as I here to-day shall smite this swine, and smite the heavier as thou art the stronger!" So saying, he slew the victim with the sacred stone.

These various examples may be taken as showing the nature and meaning of such oaths as belong to the lower stages of civilization. Their binding power is that of curses, that the perjurer may be visited by mishap, disease, death. But at a higher stage of culture, where the gods are ceasing to be divine natural objects like the Tiber or Ganges, or the sun or sky, but are passing into the glorified human or heroic stage, like Apollo or Venus, there comes into view a milder kind of oath, where the man enters into fealty with the god, whom he asks to favor or preserve him on condition of his keeping troth. Thus, while the proceeding is still an oath with a penalty, this penalty now lies in the perjurer's forfeiting the divine favor. To this milder form, which we may conveniently call the "oath of conditional favor," belong such classic phrases as "So may the gods love me!" (*Ita me dii ament*.) "As I wish the gods to be propitious to me!" (*Ita mihi deos velim propitios*.) I call attention to this class of oaths, of which we shall presently meet

with a remarkable example nearer home. We have now to take into consideration a movement of far larger scope.

Returning to the great first-mentioned class of savage and barbaric oaths, sworn by gestures or weapons, or by invocation of divine beasts, or rivers, or greater nature-deities—the question now to be asked is, what is the nature of the penalties? They are that the perjurer may be withered by disease, wounded, drowned, smitten by the thunderbolt, and so forth, all these being temporal, visible punishments. The state of belief to which the whole class belongs is that explicitly described among the natives of the Tonga Islands, where oaths were received on the declared ground that the gods would punish the false swearer here on earth. A name is wanted to denote this class of oaths, belonging especially to the lower culture; let us call them “mundane oaths.” Now it is at a point above the savage level in culture that the thought first comes in of the perjurer being punished in a world beyond the grave. This was a conception familiar to the Egyptians in their remotely ancient civilization. It was at home among the old Homeric Greeks, as when Agamemnon, swearing his mighty oaths, calls to witness not only Father Zeus, and the all-seeing sun, and the rivers, and earth, but also the Erinyes who down below chastise the souls of the dead, whosoever shall have been forsworn. Not less plainly is it written in the ancient Hindu laws of Manu—“A man of understanding shall swear no false oath even in a trifling matter, for he who swears a false oath goes hereafter and here to destruction.” To this higher stage of culture then belongs the introduction of the new “post-mundane” element into oaths. For ages afterward, nations might still use either kind, or combine them by adding the penalty after death to that in life. But in the later course of history there comes plainly into view a tendency to subordinate the old mundane oath, and at last to suppress it altogether. How this came to pass is plain on the face of the matter. It was simply the result of accumulated experience. The continual comparison of opinions with facts could not but force observant minds to admit that a man might swear falsely on sword’s edge or spear’s point, and yet die with a whole skin; that bears and tigers were not to be depended on to choose perjurers for their victims, and that in fact the correspondence between the imprecation and the event was not real, but only ideal. How judgment by real

results thus shaped itself in men’s minds we may see by the way it came to public utterance in classic times, nowhere put more cogently than in the famous dialogue in the “Clouds” of Aristophanes. The old farmer Strepsiades asks whence comes the blazing thunderbolt that Zeus hurls at the perjured. “You fool,” replies the Sokrates of the play, “you smack of old Kronos’ times—if Zeus smote perjurers, wouldn’t he have been down on those awful fellows Simon, and Kleonymos, and Theoros? Why, what Zeus does with his bolt is to smite his own temple, and the heights of Sunium, and the tall oaks! Do you mean to say that an oak-tree can commit perjury?” What is said here in chaff full many a reasonable man in the old days must have said to himself in the soberest earnest, and once said or thought, but one result could come of it—the result which history shows us did come. The venue of the judicial oath was gradually changed, till the later kind, with its penalties transferred from earth to the region of departed souls, remained practically in possession of the field.

As a point in the science of culture which has hitherto been scarcely if at all observed, I am anxious to call attention to the historical stratification of judicial oaths, from the lowest stratum of mundane oaths belonging to savage or barbaric times, to the highest stratum of post-mundane oaths such as obtain among modern civilized nations. Roughly, the development in the course of ages may be expressed in the following two classifications:—

Mundane.	} Oaths. {	Curse.
Mixed.		Conditional Favor.
Post-Mundane.		Judgment.

Though these two series only partly coincide in history, they so far fit that the judicial oaths of the lower culture belong to the class of mundane curse, while those of the higher culture in general belong to that of post-mundane judgment. Anthropologically, this is the most special new view I have here to bring forward. It forms part of a wider generalization, belonging at once to the science of morals and the science of religion. But rather than open out the subject into this too wide field, we may do well to fix it in our minds by tracing a curious historical point in the legal customs of our own country. Every one knows that the modes of administering a judicial oath in Scotland and in England are not the same. In Scotland, where the witness holds up his

hand toward heaven, and swears to tell the truth as he shall answer to God at the day of judgment, we have before us the most explicit possible example of a post-mundane oath framed on Christian lines. In contrasting this with the English judicial oath, we first notice that our acted ceremony consists commonly in taking a New Testament in the hand and kissing it. Thus, unlike the Scotch oath, the English oath is sworn on a *halidome* (Anglo-Saxon *hāligdōm*, German *Heiligtum*), a holy or sacred object. Many writers have fallen into confusion about this word, mystifying it into sacred judgment or "holy doom;" but it is a perfectly straightforward term for a sanctuary or relic, as "*On thām haligdome swerian*"—to swear by the relic. Now this custom of swearing on a halidome belongs to far pre-Christian antiquity, one famous example being when Hannibal, then a lad of nine years old, was brought by his father to the altar and made to swear by touching the sacred things (*tactis sacris*) that when he grew up he would be the enemy of Rome. In classical antiquity the sacred objects were especially the images and altars of the gods, as it is put in a scene in Plautus—"Touch this altar of Venus!" The man answers, "I touch it," and then he is sworn. When this ancient rite came into use in early Christian England, the object touched might be the altar itself, or a relic-shrine like that which Harold is touching with his right forefinger in the famous scene in the Bayeux tapestry, or it might be a missal, or a book of the Gospels. In modern England, a copy of the New Testament has become the recognized halidome on which oaths are taken, and the practice of kissing it has almost supplanted the older and more general custom of touching it with the hand.

Next, our attention must be called to the remarkable formula in which (in England, not in Scotland) the invocation of the Deity is made, "So help me God!" or "So help you God!" Many a modern Englishman puzzles over this obscure form of words. When the question is asked what the meaning of the oath is, the official interpretation practically comes to saying that it means the same as the Scotch oath. But neither by act nor word does it convey this meaning. So obvious is the discrepancy between what is considered to be meant, and what is actually done and said, that Paley, remarking on the different forms of swearing in different countries, does not scruple to say that they are "in no country in the world, I believe,

worse contrived either to convey the meaning, or impress the obligation of an oath, than in our own."

This remark of Paley's aptly illustrates a principle of the science of culture which cannot be too strongly impressed on the minds of all who study the institutions of their own or any other age. People often talk of mystic formulas and mystic ceremonies. But the more we study civilization in its earlier stages, the more we shall find that formulas and ceremonies, both in law and in religion, are as purposeful and business-like as can be, if only we get at them anywhere near their origin. What happens afterwards is this, that while men's thoughts and wants gradually change, the old phrases and ceremonies are kept up by natural conservatism, so that they become less and less appropriate, and then as their meaning falls away, its place is apt to be filled up with mystery. Applying this principle to the English oath-formula, we ask what and where it originally was. It was Teutonic-Scandinavian, for though corresponding formulas are known in Latin (*Ita me adiuvet Deus*) and in Old French (*Ce m'aït Diex*, etc.), these are shown by their comparatively recent dates to be mere translations of the Germanic originals. Now although ancient English and German records fail to give the early history of the phrase, this want is fortunately supplied by a document preserved in Iceland. Some while after the settlement of the island by the Northmen, but long before their conversion to Christianity, the settlers felt the urgent need of a code of laws, and accordingly Úlfiot went to Norway for three years to Thorleif the Wise, who imparted to him his legal lore. Úlfiot went to Norway A.D. 925, so that the form of judicial oath he authorized, and which was at a later time put on record in the Icelandic *Landnámabók*, may be taken as good and old in Norse law. Its pre-Christian character is indeed obvious from its tenor. The halidome on which it was sworn was a metal arm-ring, which was kept by the *godii* or priest, who reddened it with the blood of the ox sacrificed, and the swearer touching it said, in words that are still half English, "Name I to witness that I take oath by the ring, law-oath, so help me Frey, and Niörðh, and almighty Thor (*hialfi mer svá Freyr, ok Niörðr, ok hinn al-mátthi Ass*) as I shall this suit follow or defend, or witness bear or verdict or doom, as I wit rightest and soothest and most lawfully," etc. Here, then, we have the full and intelligible formula which must very

nearly represent that of which we keep a mutilated fragment in our English oath. So close is the connection, that two of the gods referred to, Frey and Thor (who is described as the almighty god) are the old English gods whose names we commemorate in Friday and Thursday. The formula belongs, with the classic ones lately spoken of, to the class of oaths of conditional favor, "so help me as I shall do rightly," while Frey and Njörðr are gods whom a Norse warrior would ask for earthly help, but who would scarcely concern themselves with his soul after death. It is likely that the swearer was not indeed unmindful of what the skalds sang of Nástroðr, the strand of corpses, that loathly house arched of the bodies of huge serpents, whose heads, turned inward, dripped venom on the perjurers and murderers within. But the primary formula is, as I have said, that of the oath of conditional favor, not of judgment. With the constituents of the modern English oath now fairly before us, we see that its incoherence, as usual in such cases, has a historical interpretation. What English law has done is to transplant from archaic fetish-worship the ceremony of the halidome or consecrated object, and to combine with this one-half of a pre-Christian formula of conditional favor, without the second half which made sense of it. Considering that to this combination is attached a theological interpretation which is neither implied in act nor word, we cannot wonder if in the popular mind a certain amount of obscurity, not to say mystery, surrounds the whole transaction. Nevertheless we may well deprecate any attempt to patch up into Scotch distinctness and consistency the old formula, which will probably last untouched so long as judicial oaths shall remain in use in England.

Being in the midst of this subject, it may not be amiss to say a few words upon old and new ideas as to the administration of oaths to little children. The canon law expressly forbade the exacting of an oath from children under fourteen — *pueri ante annos XIV. non coguntur jurare*. This prohibition is derived from yet earlier law. The rough old Norsemen would not take oaths from children, as comes out so quaintly in the saga of Baldur, where the goddess made all the beasts and birds and trees swear they would not harm him, but the little mistletoe only she craved no oath from, for she thought it was too young. Admitting the necessity of taking children's evidence

somehow, the question is how best to do it. In England it must be done on oath, and for this end there has arisen a custom in our courts of putting the child through an inquisition as to the theological consequences of perjury, so as usually to extract from it a well-known definition which the stiffest theologian will not stand to for a moment if put straight to him, but which is looked upon as a proper means for binding the conscience of a little child.* Moreover, children in decent families learn to answer plain questions some years before they learn to swear, and material evidence is often lost by the child not having been taught beforehand the proper answers to make when questioned as to the nature of an oath. I heard of a case only lately, which was expected to lead to a committal on a charge of murder, and where an important point rested on the evidence of a young lad who was, to all appearance, truthful, but who did not satisfy the bench that he understood the nature of an oath. Those in whom the ceremony of swearing a child arouses the feeling of physical repugnance that it does in myself, may learn with interest a fact as yet little known in England, and which sufficiently justifies my bringing forward the subject. Hearing that there was something to be learnt from Germany, I applied to the eminent jurist, Dr. Gneist, of Berlin, and hear from him that under the new German rules of procedure, which are expected shortly to come in force, the evidence of children under sixteen may be received without oath, at the discretion of the judge. In these days there is a simple rule which an Englishman will do well to act up to, and that is, "Don't be beaten by a German!" Let us live in the heartiest fellowship with the Germans, and never let them get ahead of us if we can help it. In this matter of children's legal evidence, they are fairly leaving us behind, by introducing a plan which is at once more humane and more effective than ours.

* Two illustrative cases are given me by a friend learned in the law. In court lately, a little girl was asked the usual preliminary question as to the consequence of swearing falsely, and answered in due form, "Please, sir, I should go to burning hell!" Unluckily, however, the unusual question was then put, how she knew that; which brought the reply, "Oh, please, another girl outside told me I was to say so!" It is Bar tradition, though there may be no record in print, that years ago the most sarcastic of English judges put the whole matter in a nutshell. The question having been asked of a child-witness, if she knew what would become of her when she died, she answered simply, "Don't know, sir!" whereupon the judge said, "Well, gentlemen, no more do I know—but the child's evidence cannot be taken."

If now, looking at the subject as one of practical sociology, we consider what place the legal oath has filled in savage, barbaric, and civilized life, we must adjudge to it altogether higher value than to the ordeal. At certain stages of culture it has been one of the great forces of society. There was a time when Lycurgus could tell the men of Athens that the oath was the very bond that held the democracy together. There was a time when, as Montesquieu insists, an oath was so binding on the minds of the Romans, that for its observance they would do more than even patriotism or love of glory could draw them to. In our own day, its practical binding power is unmistakable over the consciences of a numerous intermediate class of witnesses, those who are neither truthful nor quite reckless, who are without the honesty which makes a good man's oath superfluous, who will indeed lie solemnly and circumstantially, but are somewhat restrained from perjury by the fear of being, as the old English saying has it, "once forsworn, ever forlorn." Though the hold thus given is far weaker than is popularly fancied, it has from time to time led legislators to use oaths, not merely in special and solemn matters, but as means of securing honesty in the details of public business. When this has been done, the consequences to public morals have been disastrous. There is no need to hunt up ancient or foreign proofs of this, seeing how conspicuous an instance is the state of England early in the present century, while it was still, as a contemporary writer called it, "a land of oaths," and the professional perjurer plied a thriving trade. A single illustration will suffice, taken from the valuable treatise on oaths, published in 1834 by the Rev. Jas. Endell Tyler: "During the continuance of the former system of custom-house oaths, there were houses of resort where persons were always to be found ready at a moment's warning to take any oath required; the signal of the business for which they were needed was this inquiry, 'Any damned soul here?'" Nowadays this enormous excess of public oaths has been much cut down, and with the best results. Yet it must be evident to students of sociology that the world will not stop short at this point. The wider question is coming into view, what effect is produced on the every-day standard of truthfulness by the doctrine that fraudulent lying is in itself a minor offence, but is converted into an awful crime by the addition of a

ceremony and a formula? It is an easily-stated problem in moral arithmetic; on the credit side, government is able to tighten with an extra screw the consciences of a shaky class of witnesses and public officers; on the debit side, the current value of a man's word is correspondingly depreciated through the whole range of public and private business. As a mere sober student of social causes and effects, following along history the tendencies of opinion, I cannot doubt for a moment how the public mind must act on this problem. I simply predict that where the judicial ordeal is already gone, there the judicial oath will sooner or later follow. Not only do symptoms of the coming change appear from year to year, but its greatest determining cause is unfolding itself day by day before observant eyes, a sight such as neither we nor our fathers ever saw before.

How has it come to pass that the sense of the sanctity of intellectual truth, and the craving after its full and free possession, are so mastering the modern educated mind? This is not a mystery hard to unravel. Can any fail to see how in these latter years the methods of scientific thought have come forth from the laboratory and the museum to claim their powers over the whole range of history and philosophy, of politics and morals? Truth in thought is fast spreading its wide waves through the outside world. Of intellectual truthfulness, truthfulness in word and act is the outward manifestation. In all modern philosophy there is no principle more fertile than the doctrine so plainly set forth by Herbert Spencer—that truth means bringing our mind into accurate matching with the realities in and around us; so that both intellectual and moral truth are bound up together in that vast process of evolution whereby man is gradually brought into fuller harmony with the universe he inhabits. There need, then, be no fear that the falling away of such artificial crutches as those whose history I have here been tracing should leave public truth maimed and halting. Upheld by the perfect fitting of the inner mind to the outer world, the progress of truth will be firmer and more majestic than in the ancient days. If, in time to come, the grand old disputation before King Darius were to be re-enacted, to decide again the question, "What is the strongest of all things?" it would be said, as then, that "truth abides, and is strong forevermore, living and conquering from age to age." And the people as of old would say again

with one voice, "Truth is great, and prevails!" *
E. B. TYLOR.

* 1 Esdras iv. 41: Μεγάλη ἡ ἀλήθεια, καὶ ὑπερισχύει — *Magna est veritas, et prævalet.*

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WALTHER VON DER VOGELWEIDE.

WHEN the history of mediæval poetry comes to be written we shall understand, perhaps, what must remain very dark till then, how it was that during the marvellous twelfth century, amid all the chaos of the shattering and building of empires, such sudden simultaneous chords of melody were shot crosswise through the length and breadth of Europe, interpenetrating Iceland and Provence, Aquitaine and Austria, Normandy and Italy, with an irresistible desire for poetic production. In that mysterious atmosphere, in an air so burdened with electric force, the ordinary rules of germination and growth were set aside; out of barbarous races, and wielding the uncouthest of tongues, poets sprang full-armed, so many Athenes born suddenly adult from the forehead of the new Gothic civilization. That was an age of rapid movement and brilliant development, an age thirsting for discovery and invention, ready with one hand to fill the West with the new-found marvel of the pointed arch, with the other to push with sword and cross far into the fabulous East. It was at such a time, under such violent auspices, that poetry was born, full-grown, in Germany; the rude bud of folk-song blossoming in one single generation into the most elaborate art, only to wither again, as is the wont of such sudden blooms, in as short a time as it had taken to expand. No more such brilliant verse was written in German, until the time of Goethe, as was produced between the years 1150 and 1220, by a group of poets residing mainly at the courts of Austria and Thuringia. It would be out of place here to give any sketch, however slight, of the influences brought to bear upon them from without. We must hurry over the various cardinal points which demand mention before we can intelligibly introduce the subject of this memoir. It was about the year 1140 that an Austrian knight, whose name has not been preserved, gathered into epical shape the scattered ballads which form what we know as the "*Nibelungenlied*." Somewhat later, another Austrian, of equally obscure

personality, collected the priceless epics of "*Kudrun*." The minne-song, the lyric of love, was at the same epoch invented or imported by the first great German lyricist, Heinrich von Veldecke, and his example was shortly followed by the simultaneous outburst of the four great poetic voices of mediæval Germany — the nightingales as they called themselves — Gottfried von Strassburg, Hermann von Ouwe, Wolfram von Eschenbach, and Walther von der Vogelweide. The genius of the first three of these was essentially epical. In the "*Tristan*" of Gottfried, in the "*Iwein*" of Hermann, in the "*Parzival*" and the "*Titarel*" of Wolfram, we have the four great epics of romance literature, the four poetic pillars on which the whole structure of High-German language and literature rests. In these unique works, steeped in the purest colors of knight-errantry and chivalry, and written in verse-forms of astonishingly delicate art, we have in its original and undiluted form that spirit of romance that has so often since fascinated and bewitched the youth of Europe into more or less fatuous imitation. But this epical literature was not the sole product of the age; a lyrical growth accompanied it, represented by myriads of minor singers and one man that by common consent ranks as high as the three great epicists. This first of mediæval German song-writers was Walther von der Vogelweide.

Over the earliest years of his life there rests an obscurity which is likely to remain impenetrable. We know neither the year nor the place of his birth, his rank in society, nor the name of his family. In lack of clearer data than his own verses give us, we may roughly put his birth down at about the year 1170, or nearly a century before that of Dante. That he was of gentle, but not noble birth is judged by the title given him by all of his contemporaries of Meister Herr Walther, the "Herr" being the token of the knightly middle class. Over his appellative "von der Vogelweide" a great deal of ingenious speculation has been expended. "Walther of the Bird-Meadow" has been fancifully supposed to be a name adopted by himself, either to signify that he was born in some hamlet secluded in the midst of the forest, among the birds, or else merely in token of his own great love for wild places and little birds. But *Fogelweida* is understood to mean *aviarium* in old High German, that is to say, an enclosed space where birds are artificially confined. It would therefore be difficult to believe that the lover of wild things would take this

name from choice, and fortunately the difficulty has been cleared up very lately by the discovery in an old manuscript of the thirteenth century, of the existence of an estate called Vogelweide in the Tyrol, now long since disappeared, and there is little doubt that it was hence our poet came, especially as one of his friends and followers, a sweet minor minnesinger of that time, Leutolt von Seven, was born we know, in that very valley in Tyrol. This mountain province, even in that early time, had not a little thirst after literary glory, and several of its poets, contemporary with Walther, have been fortunate enough to have their *Lieder* preserved, now to be piecemeal printed by modern admirers. Walther, however, was not satisfied with a local reputation, and very early in life he seems to have left the paternal home to seek his fortune in Vienna.

There was no more attractive city in Germany to a young man with his life before him than the capital of Austria in 1190. No part of the empire was so prosperous or so devoted to the graceful arts as the neighborhood of the Viennese court, and, what would have special fascination for Walther, nowhere were the poets so brilliant, so popular, and so famous in their art. Jealous of the undisputed supremacy of Cologne, Vienna was taking advantage of its own security and prosperity to establish its position as the second city, at least, of the empire, if it could not be the first. It seems that the raw lad from the Tyrol, with nothing to live on but his genius, came and put himself under the tuition of the most famous lyricist of that age, Reinmar the Old, and lost in the blaze of the court and the noise of rival wits, we hear no more of him for eight years. It must not be imagined that he was idle during that time; it was no light task to learn to be a minnesinger. The poetry of that early age, so far from being the simple, wild-wood fluting that is idly and generally supposed, was a metrical art of the most elaborate kind, and one for the skilful performance of which a long and patient apprenticeship was needed. Out of the one hundred and eighty-eight poems of Walther's which exist, at least half are written in unique measures and all in forms of his own invention. He soon surpassed all his forerunners, even Reinmar himself, in the intricate mysteries of verse, and it is worthy of no small admiration how supple the stiff old High German becomes in his masterly hands. We shall return to this matter; for the present it may suffice to

point out that the blank years 1190-1198 must have been full of laborious exercise, and that all in which he differs from other poets in this, is that he has not seen fit to hand down to us his *juvenilia*. At the same time, there is no reason against supposing that many of his most beautiful love-songs, which carry no internal or external evidence of date, belong to this early period. However that may be, it is not till 1198 that we catch a distinct view of our poet for the first time.

Indeed there is a theory that almost all the naïve and spontaneous lyrics of Walther's minne-period date from this first Vienna life, and that it was the death of the emperor Henry VI. that first woke the poet out of his dream of love and pleasure, and that aroused in him that noble spirit of patriotism which has made his name so fragrant ever since. Henry VI. had raised the empire to a position of secure prosperity and dreaded power which it had never reached before; he was still in the flower of his age, and apparently at the opening of a brilliant career. Suddenly he died at Messina, on September 28, 1197, and the earliest poetical poem of Walther's that we possess evidently marks the tide of feeling at home when the deplorable news was brought to Germany. With his head resting in the palm of his hand, and one knee over the other, and his elbow resting on the upper knee, the poet sits on a rock overlooking the world, and speculates, not without dismay, how fortune, honor, and God's grace are to be reconciled in this bereaved and helmless state. In the next strophe he sees a great water rushing by, with fish in it, and gazing past it he sees the forest; and these fish, and the birds, beasts, yea! and the very worms in the forest, have their order and their rulers, but Germany has none. In the third part he is gifted with prophetic sight, and sees all things done, and hears all things said, by all the men and women in the world, and behold! they all with one accord lift up their hands to God and cry, "Woe! for the pope is too young! Lord! help thy Christendom." In this first poem of political import we have some of the most characteristic utterances of Walther's muse; desire of order and hatred of anarchy, yearning for the unity of Germany, and deep-rooted suspicion of the papacy. The mention of the youth of the pope gives us a hint of the exact date of the poem, since Innocent III. was elected in January 1198, at the unusually early age of thirty-seven.

The death of the great emperor was

coëval with the breaking-up of Walther's Viennese home. For some reason obscure to us, Austria was no longer favorable to his prospects. Perhaps the fate of Heinrich had less to do with it than the death of his beloved patron, Duke Friedrich, who was lingering in Palestine at the extreme end of the third Crusade, and who fell in April 1193, a few months before his great rival Richard Cœur de Lion defeated the French in the battle of Gisors. It was an epoch of great deeds and names sonorous with romance. While Walther was learning the art of poetry under Reinmar, the terrible sultan Saladin had died. To return to Vienna: in place of Friedrich, Leopold VII. ascended the Austrian throne, and in him Walther had at first to mourn an irresponsive patron. We possess an artful elegy over Friedrich, in which his successor is warned to imitate the generosity of the duke, but to so little purpose that we find Walther leaving Vienna precipitately, to offer his singing services to Philip, king of Suabia. As Friedrich died in April, and as we find Walther singing at Mayence on occasion of King Philip's coronation in September of the same year, we can hardly allow that he gave Leopold time to do justice to his powers. The poem is very flattering, but from a lyrical point of view particularly flat and inefficient. The excellent and handsome Philip responded, however, to our poet's praise of his magnanimity and his beauty, so far, at least, as to take him with him in 1199 to the Diet of Magdeburg, where Walther gives us a brilliant little picture of the procession of Philip and his Greek queen Irene to church, attended by a gay throng of Thuringian and Saxon nobles. Next year he was back again in Vienna, welcomed this time by Leopold, and rewarded for his songs by largesse from the hands of that young "glorious and liberal" prince. On May 28, 1200, when Leopold took the sword in solemn pomp as duke of Austria, gifts of "not less than thirty pounds" were made in all directions, and Walther, who had complained in 1193 that the showers of fortune fell on all sides of him but left him dry, was plentifully moistened with golden rain, and had his debts paid. This brings us to the end of his first restless period. From 1200 until 1210 he seems to have stayed quietly in Austria.

The only important event that occurred during this peaceful decade was the death of his great master in poesy, Reinmar the Old. This occurred in 1207. Reinmar, who originally came from Hagenau — that

very Hagenau where, in Walther's early manhood, Richard of England was arraigned before a Diet of the empire — was *par excellence* the poet of melancholy passion and tender reverie, and very unlike the joyous, manly figure of Walther. There is a tradition that they did not live together on the friendliest terms — a notion that is curiously borne out by the wording of a very musical and thoughtful elegy by the younger on the elder poet, in which he expressly says that it is not Reinmar he mourns, but his art. The death of Reinmar gave occasion to one of the most important contemporary notices of Walther which have come down to us. Gottfried von Strassburg, far away in Alsace, received the news as he was writing the eighth book of his great epic of "*Tristan*." He broke off to celebrate and mourn "the nightingale of Hagenau," and to weave into his narrative a critical sketch of all the great poets of his time. Reinmar has fallen with the banner in his grasp, and the minnesingers are left without a leader. Gottfried takes up his prophecy: —

Who now shall lead our congregation?
Whose voice guide this dear singing nation?
I know full well whom ye will find
Bear best that banner to your mind;
That Vogelweide it must be
Whose clear high voice rings merrily
In fields and in the open air!
Who sings of wondrous things and fair,
Whose art is like an organ's tone,
Whose songs are tuned in Citheron
To please our goddess Lady of Love.

This testimony, from such a man, proves how far the young poet's fame had already reached, and how highly he was esteemed.

Except that in this same year, 1207, Walther was so frightened by comets and shooting stars that he was sure the last judgment was arriving, nothing seems to have occurred in his history until 1210, when we find him in the service of Duke Berhard of Karinthia, where he was so ill at ease that in 1211 he migrated again; and this time to the very home of polite letters, Thuringia, where the young landgrave, Hermann, gathered around him all the most advanced spirits of the age. At the Thuringian court on the Wartburg, close by Eisenach, Albrecht von Halberstadt was busy with his German version of Ovid's "*Metamorphoses*;" Herbert von Fritslar was composing his epic on the tale of Troy; Heinrich von Veldeke, the greatest of Walther's predecessors, had just died, hard by in Naumburg; and, best of all, Walther learnt here to know the rare and exalted genius of Wolfram von Esch-

enbach, who was writing his deathless "*Parzival*," amid the roaring joviality and hospitable freedom of the Wartburg, of which Walther, whom it suited less, gives a striking picture. This seems to have been a time of depression and morbid irritation with our wandering poet. His bitterest epigrams against Pope Innocent III. date from this period, and the merry life at Eisenach seems to have jarred upon his melancholy. He is plaintively humorous against a certain knight Gerhard Etze, who has stolen his horse, and on whom he revenges himself by describing him thus, —

He rolls his eyes as monkeys do,
But most he's like the lewd cuckoo,

and other such uncouth pleasantries in the lumbering manner of the Middle Ages. From Thuringia the dissatisfied man turned to the service of Dietrich Margrave of Meissen, and remained with him till 1213. It is provoking, and a little humiliating, to read the verse-petitions addressed to one monarch after another, praying for protection and shelter, and urging liberality in the style of a charity sermon. Under Dietrich as under Hermann, Walther was a liege servant of the emperor Otto IV., whose excommunication by the poet's pet aversion, Pope Innocent, provokes him to continual wrath. In all his poems against the papacy, he writes with a freedom and a force that are truly remarkable, and Luther himself never spoke out more plainly than Walther von der Vogelweide in one little *Spruch* or sonnet, where he urges the division of all temporal and spiritual authority, that being given to God which is God's, and that to the kaiser which is his. Germany was divided between rival emperors. Otto IV. was pitted, to the great danger of the whole Hohenstaufen dynasty, against the legitimate heir to the throne, Friedrich, the young son of Henry VI. The civil war between these princes was carried on for ten years, and by-and-by we find Walther growing impatient with his patron, and urging him, at any cost, to endanger the unity of Germany no longer. Presently he describes with enthusiasm the fine presence and masculine beauty of Otto, but pathetically wishes he were as mild as he is tall. Things rapidly get worse and worse, till at last Walther takes up his parable against Otto as a double-faced monster, and openly comes over to the cause of Friedrich. This was but the instinct of a wise rather than grateful man of the world, for the poem we have mentioned last seems to belong to the year 1215, in

which Friedrich II. finally gained the day. A series of moving appeals to the clemency of Friedrich meet us next. If only the great man will smile, the poet's genius, now frozen as in winter, will re-blossom and revive. He says that —

Then will I sing again of little birds,
Of heather, and of flowers, as once I sang :
Of lovely women and their gracious words,
And cheeks where roses red and lilies sprang.

Vienna seems once more to have become his settled home, and in 1217 we read his farewell to Leopold, who, with the flower of Austrian chivalry, was then starting for Palestine on the fifth Crusade. Their departure leaves the court and city as empty and dull, we are told, as the departure of the knights of the Round Table, when they parted on the quest of the Graal, left Arthur's fabulous city. The public of Walther's day, it must be remembered, were even more familiar than we are with the Arthurian legends. The humorous tone of this song, however, soon fades in genuine apprehension, and we have a poem in which, in a strain of the tenderest and most childlike piety, he begs God to guard him as Gabriel guarded Jesus in the crib at Bethlehem. To this period belongs a curious lyrical tirade against the roughness of the young knights, who have no care for courtesy and the dignity of women. For such licentious and forward mediæval youth, Walther has but one lesson, and he repeats it incessantly, —

And wilt thou gild the round of life, of women
speak thou well.

The two years between Leopold's departure, and his happy return in 1219 were lightened by brief visits to Styria and Bavaria, but he was back again in Vienna to welcome his prince, and to send a joyous note of congratulation after him when he set out once more, this time to be crowned at Rome in the winter of 1220. It must have been about the same year that he gained the friendship of Engelbert, the stirring prince-archbishop of Cologne, under whose special protection he flourished until 1225, when that gifted prelate was murdered by his own nephew. As time goes by, as the poet grows older, and as one friend and patron is taken from him after the other, he loses gradually the elasticity of intellect that had so long sustained him, and there comes to be something almost querulous in his tone. In cadences that become monotonous, he mourns the disappearance of honor, art,

piety, and virtue from the land, and it is not always that the sadness is tempered with so much sweetness as in the following poem, which we translate as literally as possible, with the poet's own rhymes and measure. 'He has been ill all through the winter, and only revives when spring is in the land once more : —

The hoar-frost thrilled the little birds with pain,

And so they ceased their singing ;

But now the year grows beautiful again,

Anew the heath is springing.

I saw the flowers and grasses strive amain

Which should the taller be —

I told my lady this sweet history.

O how I suffered through the wintry hours

And grievous frosty weather !

I thought I nevermore should see red flowers

Among the dark green heather ;

Yet, had I died, 'twere grief to friends of ours,

Good folk who when I sang

So gladly danced about for joy and sprang.

Had I been dumb on this delightful day,

For me it were great sorrow ;

And Joy, so smitten, would have fled away,

And for no happier morrow

Would Joy have said farewell, O well-a-day !

May God preserve you all,

So that ye pray that health may me befall.

The poet need not much longer detain us from the poems. After the murder of Engelbert the religious tendency of Walther's character seems to have deepened into pietism. It is, therefore, fitting that we meet with him next at the court of Hermann's successor, Ludwig, landgrave of Thuringia, who, as husband of Saint Elizabeth and patron of the ecclesiastical party, was as fanatic as his predecessor had been dilettante. But Hermann's ring of poets was by this time broken up ; one by one they disappear, as is the wont of mediæval poets, fading from our sight with no record of their death. Ludwig was a child of the new age, the characteristic man of the fanatic epoch just commencing. With the year 1226 a sudden accession of pietism was felt throughout Europe ; the life-long devotion of St. Francis of Assisi was crowned by his mystical death, and France was at once consolidated and fully reconciled to the papacy by the accession of a still sweeter because more human saint, St. Louis. The power of the empire, on the other hand, was visibly shaken. In vain Friedrich, "the world's wonder," had trusted to the power of his individual tact and genius to frustrate the petulant intrigues of pope after pope. He was the most bril-

liant of the Hohenstaufen emperors, but under him the power of the dynasty faded into air. His independence of religious opinion was not shared by the tributary princes of the empire, and among the malcontents none was more ardent than this young landgrave of Thuringia. At the court of Eisenach, in 1226, Walther must have often seen the slight pale figure of the austere girl who ruled the ruler of the Thuringians. Mystical, hysterical, a dreamer of dreams, the wife of the landgrave Ludwig was among the most singular of the characters of that dramatic age. We know her best as St. Elizabeth of Hungary, that very saint round whom some of the most charming myths of the Middle Ages cluster. Not, we may be sure, without strenuous help from her did Walther von der Vogelweide, in 1227, address a burning word of lyrical exhortation to Ludwig to start on a new Crusade, to win back Palestine once more. In all Walther's latest poems we may fairly trace the inspiring influence of personal intercourse with Saint Elizabeth, and the verses which breathe the fullest perfume of her pure devotion are among the deepest and most exalted that he has left. Always a child of his age and a representative man, we see him in the early troubadour times throwing all his force into the courtly cultus of the Lady of Love, in the internecine struggles of the candidates for empire, preaching with a louder, clearer voice than any other the gospel of unity and independence ; now in his old age rousing to the new religious fervor, and contributing to its psalmody the crown of spiritual songs. Ludwig obeyed the summons, and started under the banner of the emperor Friedrich in the autumn of 1227. Two beautiful *Kreuzlieder* of Walther's — Crusade-songs that manifestly belong to this pilgrimage — still exist, and from their wording it has been considered that one was composed after the melancholy delay at Otranto, where Ludwig and many others died of the plague, the other in Palestine itself. The present writer, however, holds with that most careful critic, the late Franz Pfeiffer, that these poems contain nothing that could not as well have been written in Germany as in the Holy Land. One strophe of the first will illustrate the measure and manner of them : —

O God, thy succour send us,
Thy saving right hand lend us,
Till all is done befriend us,
Till all this life is o'er ;

In all our onward stations
 Defend us from temptations :
 We know the hellish nations
 Are round us tempting sore ;
 O lead us with this ditty,
 Right on to thy lone city !
 Jerusalem, in pity
 We weep for evermore !

With the departure of the Crusade, Walther's last light seems to have gone out. Sad and weary he turned to his old Tyrolese home, and found all there changed and desolate, after forty years of absence. It was probably then, and sore at heart to find himself forgotten, that the old world-weary poet composed his last and finest poem. The burden of life was never sung with more passionate sorrow ; the very rhythm seems to have a wailing echo in it. We have essayed to render part of this exquisite elegy, with as little loss as possible of its *naïveté* and pathos : —

Woe's me, where are they vanished, my years
 of life that flew ?
 O has my life been but a dream, or has it all
 been true ?
 Was that a lie I cherished, that truth I vaunted
 so,
 For, lo ! it seems I've been asleep, and nothing
 now I know.
 Now have I awakened ; all is dim ! I cannot
 understand
 What, ere I slept, was plain to me as is my
 either hand ;
 This folk and land amidst of which my life
 arose so well,
 Have grown my foes, and all is strange, and
 why I cannot tell.
 My life is bowed with burdens, 'tis more than
 I can bear ;
 The world is full of sorrow and weary with
 despair ;
 And when I think of 'time long past, of won-
 drous vanished days,
 Grief takes me like a sudden wave that breaks
 on ocean-ways.
 The very youth that were so gay, how sadly
 now they fare,
 Their eyes are bowed with wretchedness, their
 lips are full of care ;
 All they can do is mourn and weep ; alas !
 why do they so ?
 Where'er I turn in all the world no happy man
 I know.
 Dance, laughter, singing, all forgot and sadly
 put away,
 No man throughout all Christendom has joy
 in these to-day ;
 Mark how the women little heed the tiring on
 their head !
 The proudest knights are fain to lie in boorish
 drowsyhead.

O would that I might bear a shield and take a
 sword in hand,
 Would God that I were worthy found to fight
 for his dear land !
 Then should I, poor albeit I seem, myself a
 rich man hold,
 Yet not in acres have my wealth, nor master
 be of gold.

But I should bear upon my head the bright
 eternal crown
 That one poor soldier with a spear can con-
 quer for his own ;
 O might I that dear voyage make, and wend
 across the sea,
 Forever would I "Glory !" cry, and never-
 more "Woe's me,"
 And nevermore "Woe's me !"

Such, or rather far sweeter and more musical than we have art to make it, is Walther's swan-song, and with it he fades out of our sight. The only traditional fact that can help us is, that he retired to an estate near Würzburg, in Franconia, which Friedrich had given him, and that he quietly passed away about 1235, having survived all the rivals and friends of his youth. It is said that he was buried under a linden in a grass-plot surrounded by the cloisters of Würzburg Minster, in a sweet poetic sanctity, shielded from the world, yet open to the sky and a leafy haunt of birds. Out of the great love he had for those his winged rivals of the woods, there arose a charming legend, that has done more than anything else to popularize his memory, to the effect that in his last testament he left a special provision that directed that every day the birds should receive food and drink upon his tombstone, so that the branches of the linden that hung over him should never cease to resound with the voices he had so tenderly loved and so exquisitely imitated. Many poets competed to write his praise when he was dead, but none with such a naïve felicity as Hugo von Trimberg, in his well-known couplet : —

Hêr Walther von der Vogelweide,
 Swer des vergæz', der tæc' mir leide.

"Who thee forgets, does me a wrong !"

It is time now to examine the poems which remain to us of the work of this great man, whose troubled and unhappy life we have traced to its final repose. In the course of the previous narrative we have spoken of the political section of his verses, for it is from these that we have extracted, not without much labor, the greater part of the history of his life. Full of biographical interest as they are,

however, they do not form by any means the most attractive or important section of his labor. In treating Walther as a political or as a religious poet, we must not forget that his great claim to remembrance rests, not on the lyrics which he composed in these capacities, but on the matchless *Minnelieder*, love-songs, which were the first-fruits of his youth. In reading these we find ourselves face to face with the earliest blossom of pure chivalry. As might be expected in the lyrical work of a generation that blended the sentiment of "*Kudrun*" with that of "*Parzival*," the Scandinavian toleration of women, born of something like indifference, with the Provençal gallantry, born of poetic passion, the German love-songs of the school that culminated in Walther have a tender elevation, a serene sweetness more courtly than a northern, less sensuous than the southern erotic literature.

Friedrich Barbarossa had instituted several doubts of love in Germany in the middle of the twelfth century, but they had not suited the grave temper of the nation; and, while in Provence and France they flourished for a couple of centuries, becoming more and more fantastical and licentious, we hear no more of them in Germany after the death of Barbarossa. French influence on German literature was more epical than lyrical, more through such writers as Chrétien de Troyes than through the troubadours; but the laws of love as settled by such potentates as the countess of Champagne and Ermengarde, lady of Narbonne, were accepted by the whole world of lovers, and are reflected in the simpler poems of the minnesingers. What strikes us most prominently in the lyrics of Walther, and what gives them that inherent excellence which has kept them fresh after six hundred years, is the resolute manner in which, in defiance of the artistic theories of the age, he constantly returns to the study of nature, and the folk-song as an inspired emanation from nature. His verse is full of clear little landscapes, warm with color and sunlight, like those that fill the backgrounds of the earliest German and Flemish painters. The great fault of mediæval poetry being that it is conventional, mannered, and artificial, the student of that poetry best knows how like a fountain in the desert such a clear trill of song as the following ballad of Walther's seems. There is a versified paraphrase of it by Thomas Beddoes, the author of "*Death's Jest-Book*;" but so inaccurate is it, that we prefer to lay before the reader a translation in literal

prose, the intricate harmony of the original measure seeming to defy translation:—

Under the linden
On the heath,
There our double bed we made;
There might you find
Fair as well as
Broken flowers and grass.
In front of the forest in a valley,
Tandaradei!
Sweetly sang the nightingale.

I wandered
To the field;
Thither was my beloved come.
There was I so taken,
Blessed Lady!
That I shall evermore be happy.
Did he kiss me? O, a thousand times!
Tandaradei!
See how red my mouth is!

There had he made
So rich
A bed of flowers;
Had any one come by,
Inwardly
He would have laughed,
Since among the roses he might well,
Tandaradei!
Have marked where my head had lain.

That he was there by my side
If any were to know,
(God forbid it!) I might be shamed.
What there befell
No one knows,
Except he himself and I
And one little bird,—
Tandaradei!
And she may well be trusted.

The innocent sweetness of these lines reaches at one bound the absolute perfection of such writing. In our own rich poetic literature we have equalled, but none could excel its divine simplicity and purity. In Germany it remains without a rival in its own peculiar class, the finest songs of Friedrich Rückert coming closest, perhaps, to it. The genius of the folk-song was never more exquisitely wedded to the art of accomplished verse. Among characteristics that Walther owes to his reverent study of the folk-lied, may be mentioned his manner of contemplating the seasons, and their natural phenomena. Spring is his favorite time, and he is divided between the joyous excitement of seeing the flowers break through the snow, delicate reminiscence, perhaps, of the gentians on his own Tyroiese mountain-sides; and the still contentment of May, the month of blossoms, that links spring with summer. He has his flower

of flowers; the heather is to him what the daisy was to Chaucer. His songs are full of references to the tender beauty of the rose-red bells that bud and break out of the dark-green sprays. He is never tired of this one flower; when he is ill and like to die in winter, it is the sight of the heather in bloom that brings back to him the desire to live. Some of his images give the heather a sweet significance; in one *Minnelied* he says: "The heather blushes red in spring to see how green the forest is growing, so sorrow is ashamed at sight of joy." But it is not the simple flower of the wilds that can bewitch him in his excitable moments. Then the forest must receive him in its murmurous depths, to wander there till the poet's mood of restlessness is over. "I love the heather with all its manifold colors, but I love the forest better still, for within it there are many wonderful things." But for the winter he spares his hatred. Few men have said more petulant things about the winter-time than Walther. The first line of the first poem in the collected edition of his works reads: "The winter has done us all manner of harm: heather and forest have both lost their color, but many a voice will soon sound sweetly there again. As soon as I see the maidens playing at ball in the streets, then I know it is time to hear the birds again. Would that I might sleep away all the hours of winter! for watching and waiting, I grow angry that its power should spread so far and wide. God knows it must soon give place to May, and then we shall have flowers again where now we have frost." In another early poem he says: "I am grown as uncouth as Esau, my smooth hair has become all rough (with winter cold). Sweet summer, where art thou? I long to see how the fields lie once more. Rather than go on suffering as I am doing now, I would go and be a monk at Toberlû." Toberlû being, it seems, an excessively bleak and dreary Cistercian monastery in Westphalia. Once only does he speak well of winter. That one good word is to be found in the latest group of his *Minnelieder*, where at last the obdurate lady of his love has rewarded his patient passion with a declaration of her submission. That first winter of bliss cannot be denounced as winters in general are. He blames the days for being so short, but satisfies himself with this true lover's philosophy:—

If the winter days be brief,
Longer last the winter nights;

Loved and lover find relief,

Rest and bliss in love's delights.

What have I said? Woe's me! in silence best
Such rapture were confessed.

There is one exquisite *Taglied*, or *aubade* as the French would call it, song of dawn and awakening, in which the Juliet finds a thousand plausible reasons why her Romeo should take no heed of the day-star that shines out of the grey sky in testimony of the approach of morning. Fresh as dew or a newly opened flower, such poems as these, perfumed with gaiety, chivalry, and romance, come down to us with the first principles of love and poesy upon their innocent rhythms. These earliest lisps of the vernacular are naïve with the simplicity not so much of a child as of some adult creature newly gifted with a voice, some dryad or oread just cumbered with humanity. Their sweetness is primitive and unaffected, and we listen to them with surprise to find the things they tell us so familiar and yet so freshly put. The old High German, too, has a dreamy dignity about it that is lacking in the German of to-day; there are none of the harsh labial compounds that grate upon the ear, and mar so much of the melody even of Goethe and Heine; there is none of the garrulous flatness that mars its other child, the otherwise rich and graceful tongue of modern Holland. It is inherently, in all its distinction and its imperfection, the language of romance, as Old French is *par excellence* the language of chivalry.

All this while we have said nothing about the class of his poems for which Walther was most admired by his contemporaries, and in which they took most interest, the *Minnelieder*. Criticism loves above all things to linger around the peculiarities and individualities of a character, and shrinks from the needful task of considering its uniformities. Minne-singing was the fashion of the time, and of Walther himself we learn least from the love-songs. Yet, considered simply as poetry, and as the culmination of an interesting literature, they are worthy of our careful attention. The relative position of a poet and his mistress, of any knight and his liege lady, was but recently defined by the fantastic laws of chivalry. The elaborate system of gallantry that was instituted in the south of France, and out of which there gradually developed a passion for amorous litigation which was never equalled for frivolity before or since, had not penetrated as far as Germany. We meet with none of the nonsense of *tensons* and *arrêts*

d'amour east of the Rhine, and there is an agreeable absence of the attacks upon conjugal duty in sentiment if not in fact which were so familiar to the French courts of love. A simpler, sweeter fashion prevailed among the patrons of the minnesingers, and the new discovery of the lofty worth of woman was pushed to no foolish excess of affectation. It seems to have been customary for every minstrel who felt in himself a calling to sing of love, to choose a mistress to whom to pour out his ardor and his melancholy. Considering the roughness of the times, it is very singular that the ordinary tone of the verses produced should be so reticent, so delicate as it is. These are the words in which Walther first introduces us to the lady of his love: "When the flowers are springing out of the grass, laughing up at the wanton sun, in a May morning early, and the little birds are singing in the very best way they can, what can be likened to that? It is well nigh heaven itself. Should we say what it likens, I could have said what I have seen much better, and I would say so still could I only see that glorious sight again. It was where a noble, beautiful, pure woman, well robed and well adorned, went in company with many folk, with lofty bearing and not alone, looking slowly around her from time to time, going as the sun goeth among the stars. Let May bring us all its wonder, what has it so wonderfully sweet as this her lovely body? We let all the flowers stand waiting, and gaze upon this perfect woman."

We are forcibly reminded in this beautiful description of Walther's first sight of his mistress, of the passage in the "*Vita Nuova*," where Dante sees Beatrice among the other fair Florentine girls, outshining them all. There is a grace in the picture that recalls the slim maidens of some early Tuscan procession, in attendance upon a queen who easily surpasses them in dignity and beauty. Presently the first awe of the stricken senses gives way to passion that exalts and excites the imagination, and in the next poem his hands are longing to adorn her. In language at once ardent and reverent, he declares that her simple robes should be set off with chains of jewels, and since he is poor and cannot buy these, he will throw about her garlands of red and white flowers that have sprung in forest depths to the sound of the singing of birds. He flies to the woodlands to get these chaplets for her, and in the leafy solitude he makes bold to tell us how he declared his love for her to herself. It was underneath a blossoming tree that he

told her, and the air so shivered with his passion that the petals were loosed from the boughs and fell in a soft rain at their feet. In his next song he is less rapturous. It is the beauty and goodness of his dear lady that have bewitched him, and her red mouth that laughs so sweetly; and his own diction, as he says so, is so felicitous and bright, that we think of Heine in his few joyous *Lieder*. Presently we learn that some great national disaster has fallen upon Germany; but Walther can hardly refrain from singing, for he is thinking of his mistress. He is like a happy child forced to attend a funeral, who is chided for an involuntary peal of laughter. But a sadder tone comes in, a chord of apprehension jarring on the joyful music. His lady holds aloof, and while permitting him to be her declared servant, will grant him no favor, and pronounce no word of comfort. The rapture gives way to a strain of exquisitely gracious supplication. "If thou art indifferent to me I know not. I love thee! This one thing is hard to bear. Thou lookest past me and over me. I cannot bear this my burden of love alone. If thou wilt only deign to share it, I can easily bear it." There is something extremely genuine and pathetic in this broken cry of hope deferred, and the simple confession that it is very hard to be unable to fix her look a moment, that she will "look past me and over me." We seem suddenly brought face to face, pulse to pulse, with the living man in such a natural ejaculation of wounded love and vanity as this. In the next poem we learn something of the proud lady's station. "*Hêrzeliebeze frouwelin*," he says, "heart-beloved maiden, many blame me that I love one so poor as thou art and of so low estate. This I bear as I have borne, as I will ever bear; thou art beautiful, and thou art rich enough for me. I would not give the glass ring round thy finger for a queen's gold." The next song lends itself so lightly to our English, that we cannot refrain from giving one stanza in verse:—

God of her face had great delight;
He spread such precious colors there,
So purely red, so purely white,
Here rosy-flushed, there lily-fair;
O, I would see her gladlier far,—
Dared I say so without sinning,—
Than heaven or heaven's bright chariot-star;
Poor fool, is this thy praise-beginning?
For if I lift my words so high
The trespass of my mouth may make my heart
to sigh.

Whereupon he melts into a reverie about

her lips, so ripely red for kissing, and wonders if he shall ever win them for his own; the whole somewhat unusually amorous strain being accounted for in some measure by the last stanza, in which we learn how he fainted, wounded by her loveliness, as, himself unseen, a wildwood Actæon, he watched her rising naked from her woodland bath. We also, glancing for a moment, may in fancy see some such substantial figure, flecked with leaf-shadows, and unabashed, as was made immortal three hundred years afterwards in Albrecht Dürer's glorious engraving of the Adam and Eve, that beatification of the Teutonic Venus.

At this point we meet with the first of those invectives against "my lady Fortune," *Frou Sælde*, which become so common. He begins to feel his lack of wealth and his uncertain position very irksome and painful, and he blames fortune for his ill-luck with his mistress, who in spite of all is still "not dear, or very dear, but the dearest of all." It furthermore appears that the object of his affections is not known to the world; it was a kind of duty with sensitive lovers to conceal their lady's name, and he complains that people flock round him, and tease him to tell them. But he will give way at last, and let them know. This lady, then, has two names—the one of them is Grace, but the other is Churlishness; and so he leaves them as wise as they were before. There follows then a declaration couched in words of the most modern tone and feeling. He tells us that a man of honor, a knight, a gentleman in fact, should respect all women, but should keep his deepest reverence for the best. Not those, necessarily, which have the most beauty, for beauty is but an adornment of goodness; and then, confessing that his mistress treats him ill, yet he cannot regret being a servant of love, for he says that a man knows no more than a child what life means if he never loved a woman. Next we have a charming pastoral vignette. He is sitting in the fields, and meditating on his love; he determines to try the oracle. So he takes a long stalk of knot-grass, and pulls it asunder, joint by joint as children do, to see if she will love him or love him not. He begs us "Do not laugh!" for the answer is favorable, and he is so hopeless that even that affords him some little consolation. Presently we find him, in true Renaissance spirit, kneeling in supplication to *Frouwe Minne*, Venus, our Lady of Love, that she will shoot an arrow into the hard heart of his

mistress. It is difficult to imagine how it was possible that these long-winded interchanges of homage and disdain, to prosecute which

Men must have had eternal youth, —
Or nothing else to do,

as Mr. Dobson flippantly but pertinently says, could be pursued without much ennui. The sense of the ridiculous was very slightly developed in the early mediæval times, many proofs of which might be adduced from Walther's poems, and from none more than the next we come to among the *Minnelieder*, which we translate as being at the same time very short and a curiosity in subject and metre: —

Queen Fortune throws her gifts around,
But turns her back on wretched me;
No place for pity hath she found,
And what to do I cannot see;
To me to turn she will not deign,
And if I run around, I find her turned again.
She pleases not to see me ever,
I would her eyes stood in her neck, so must
she see me then for all her wild endeavor.

The abnormal length of the last line is of not unfrequent occurrence in these poems, and points to some peculiarity in the melody to which they were sung, for in all cases the metre was arranged to suit the tune, not the tune composed for the words.

A fresh group of more humorous *Minnelieder* opens with a whimsical piece of petulance directed against his lady. All her honor comes from having so great a poet to sing her glory, and if she will not favor him he will sing no more, and her fame will be forgotten. Then with a curious impetuous outburst that is half-comic, half-savage, he hopes that if she refuses him, and takes a young man when she is gray, that her lusty husband may revenge her first poet-lover by ill-treating her, and by whipping her old hide with summer saplings. The next is more fantastic still, full of curses on the winter, queer jokes about the ill-fortune of hearing the ass and the cuckoo on an empty stomach, and ends up by addressing his mistress as Hiltegunde. It has been supposed from this that that was her name; but, on the whole, considering the etiquette of the times, which, as we have seen, forbade a knight to reveal his lady's name, it is more likely that it is a play on his own name in connection with the popular romance of "Walther and Hiltegunde." A little later we are assured that the emperor, probably poor young Heinrich VI., presently about to die in Sicily, would

gladly turn music-maker for a kiss of her red lips. Passing one or two similarly conventional lyrics, we come to one song of a far fresher kind, one that made Walther famous at once, and which ought to endear his name and memory to every German, the first clear note of high patriotic unity, a hymn in praise of Germany and German beauty. One verse in particular has often been quoted by modern critics as curiously anticipating the famous national song, "*Was ist das deutsche Vaterland?*" of Ernst Moritz Arndt: —

From Elbe River to the Rhine,
And back again all round to Hungary,
'Tis the best, this land of mine;
The best of all the world, it seems to me.
If I can judge what's fair,
In body or in face,
So help me God, no ladies have such grace
As German women bear.

Whether this declaration of public feeling softened his Hiltegunde's heart or not, at all events we find him soon on terms of familiarity with her, called by her *frunt* and *geselle* (lover and comrade), and calling her in return *frundin* and *jrouwe min* (darling and wife). With this song and with that quoted above, in which, for her sake, he forgives the winter, closes the series of *Minnelieder*.

The verses of his later days breathe a spirit of morbid and petulant melancholy that is very sad to meet. He lived long enough to see the decline of art, and to hear the cry that poetry was dead. Walther deplores with much bitterness the loss of courtly popularity. The world whom he has served and still would serve has left him, he tells us, to listen to young fools. The garlands of the world have missed him, and the blossoms faded; the very roses have fallen apart and left only thorns. Virtue has lost its power, beauty its magic, in these sad days. In short, he mourns, like Asaph of old, that the wicked should flourish as a green bay-tree, while he is poor and an outcast. In one of these later poems, however, we come upon a single example of a brighter mood. It begins with the old depression. He is in utter despair; life is not worth living; all men do evil, and that is the fault of the women. So far all is gloomy, but at the mention of the last word he pauses, and reproves himself for speaking evil of women. He has no right to carp at others because life is dark to him, and the piece ends by his saying, "Then I will live as best I may, and give out my song." But he is soon as miserable as ever. Love

likes the stalwart limbs of young Four-and-twenty better than the wise bald head of Threescore. The Lady of Love has gone crazed after young fools, and heeds not him nor his songs. Art is at a low ebb, morality is dead, and at last he says farewell to the world altogether.

There is little pleasure in following him through this period of morbid and atrabilious discontent, a Byronic disease of the mind far enough removed from that melancholy of Leopardi or Shelley, which is deeply poetic in spite of its weakness. We lose in it all trace of the joyous singer who had been unable, in his youth, to lead off even a piece of juggling nonsense about a crow and an old woman, without a prelude of such bubbling Chaucerian sweetness as this: —

When summer came to pass,
And blossoms through the grass
Were wonderfully springing,
And all the birds were singing,
I came through sun and shadow
Along a mighty meadow,
In midst of which a fountain sprang,
Before a woodland wild, that rang
With songs the nightingale outsang.

We have seen that he awoke from this intellectual paralysis which was creeping over him, under the excitement of the pietistic revival, and wrote some superb fresh sacred lyrics under the personal influence of St. Elizabeth of Hungary. We have seen, too, that the rousing of the embers was but a flash and that the end was near. The life of trouble was to find rest in the cloistered silence of Würzburg. Thus we have traced the man and the poet through his life and his work to the same point of conclusion. E. W. G.

From Temple Bar.

LEIGH HUNT AND LORD BROUGHAM.

WITH ORIGINAL LETTERS.

BY S. R. TOWNSHEND MAYER.

IF we were asked, without a moment for reflection, to say who among Leigh Hunt's distinguished Liberal contemporaries was least likely to have been his frequent and familiar correspondent, we should answer, Lord Brougham. In the long period of peaceful popularity which closed Leigh Hunt's life the present generation is apt to lose sight of the storm and strife of social and political discussion during which it opened; and in the grace-

ful poet, the subtle critic, the genial fire-side companion, to forget the keen-witted controversialist, the dauntless champion of popular rights, the man in whose endurance and self-sacrifice for the public good, Byron recognized "a modern Hampden."

Charles Knight, in his "Passages of a Working Life," well describes the contrast between the ideal and the real Brougham, when on his way to their first interview, in the winter of 1826. He says:—

There was an image in my mind of the queen's attorney-general as I had often beheld him in the House of Lords, wielding a power in the proceedings on the Bill of Pains and Penalties which no other man seemed to possess—equivocating witnesses crouching beneath his withering scorn; mighty peers shrinking from his bold sarcasm; the whole assembly visibly agitated at times by the splendor of his eloquence. The Henry Brougham I had gazed upon was, in my mind's eye, a man stern and repellent; not to be approached with any attempt at familiarity; whose opinions must be received with the most respectful deference, whose mental superiority would be somewhat overwhelming. The Henry Brougham into whose chambers in Lincoln's Inn I was ushered on a November night was sitting amidst his briefs, evidently delighted to be interrupted for some thoughts more attractive.

After describing Brougham's hearty reception of his visitors, his frequent jokes, ready sympathy, and grasp, equally instantaneous and exact, of every subject brought before him, Knight adds:—

The image of the great orator of 1812 altogether vanished when I listened to the unpretentious and often playful words of one of the best table-talkers of 1826—vanished, even as the full-bottomed wig of that time seemed to have belonged to some other head than the close-cropped one on which I looked.

If we glance at the public career of Leigh Hunt in his early days, and the private tastes and sympathies of Brougham through the whole of his nobly useful life, we shall see how much the two reformers had in common.

In 1807 Henry Brougham, then thirty years old, after a dawn of brilliant promise, both literary and legal, in Edinburgh, came to London to qualify for the English bar—a step of which he gives a curious and interesting account in a letter to Earl Grey, dated "Middle Temple Hall, May 31, 1808." He says:—

From accidental circumstances I find myself placed in a situation which enables me to command a considerable degree of success in

the profession of the law, and however odious that profession is (as God knows there are few things so hateful) I am quite clear that it would be utter folly in me to neglect so certain a prospect. I have of course been continuing my study of law, and pleading as diligently as possible. . . . But I have resolved, in the mean time, to risk an experiment which I fancy you will think not very prudent, and which I own is not quite safe. By means of a special motion at Lincoln's Inn I may manage to be called to the bar early in July, and then to go the next Northern Circuit,—which I prefer to any other, as being the largest field and in every respect the first thing in that way. I shall do this at the present moment because, from my recent intercourse with Liverpool and Manchester [in consequence of his spirited pleading, on behalf of certain leading merchants, against the Orders in Council, prohibiting trade with all ports occupied by the French] the iron in that quarter is hot, and should be struck before it cools. I set out with too slender a provision of law, no doubt, and may very possibly never see a jury until I have to address it, my stock of practice being so slender that I never yet saw a *nisi-prisus* trial. But the points of law are few on a circuit, and by good fortune none of any difficulty may fall on me, and as there are no great wizards go the Northern Circuit, I may push through the thing with a little presence of mind and quickness. Besides, nothing was ever done without risk, and nothing great without much danger. Therefore I have taken my determination, and shall be ready to set out for York when the circuit commences. In short, being so fairly in for it, I must make the best of an indifferent bargain, and addict myself to whatever will carry me upwards at the bar. There are many openings—no formidable obstacles. And one may hope in time to make the profession a little more like what it used to be of old, when mercenary views were out of the question, and it was certainly the finest of all civil pursuits.

The year in which Brougham was called to the English bar saw the *Examiner* started by Leigh Hunt and his brother John. At the time, W. J. Fox tells us, in his "Lectures to the Working Classes," when the new journal became

the champion of every good object—when it feared not to expose iniquity in high places—when it grappled with every question in an honest and inquiring spirit—at that time people were living under a very different state of things with regard to the public press from what prevails in our own day. Those were really times of peril. The power which Pitt established when he quelled the first great efforts in the cause of reform was yet exercised in its plenary influence and wide extent. The nation was mad with the war spirit.

The letters printed by Thornton Hunt in the two volumes of his father's "Cor-

respondence," are naturally those which enter most fully into personal sympathies, such as that love of classic literature which amounted to a passion in Leigh Hunt, and brought rest and refreshment to Brougham even amidst the "warfare of giants," as Lord Jeffrey called the political strife of their youth. Other letters, covering a wider range of topics, edited by Lord Brougham himself, and reserved for a projected third volume of the "Correspondence," which never appeared, were handed to me in the spring of 1873 by Thornton Hunt with the rest of his father's letters and remains, and from them I make the following selection.

One of the earliest unpublished letters before me—so far as their contents afford a clue to their chronological sequence, for unfortunately Brougham rarely gave a fuller date than "Temple, Monday," or, "Brougham, Friday," and few of the covers have been preserved—treats of a book less widely known than it deserves; the "Collection of Letters" between Charles James Fox and Gilbert Wakefield.

As the "historical memories" of the present generation of politicians embrace a scarcely more remote antiquity than the palmy days of Earl Russell, it may be useful to explain that Gilbert Wakefield was the son of the rector of St. Nicholas, Nottingham, who, after obtaining high collegiate distinction in classics and theology, left Cambridge for the curacy of Stockport. Soon quitting the Established Church he, after an interval of teaching, devoted himself to literature—writing and publishing with such rapidity that he is said to have "rushed to the printer's with manuscript on which the ink was scarcely dry." His classical and theological works passed unchallenged, but when he dashed, with all the hot impetuosity of his nature, into political pamphleteering, he trod ground unsafe in those days for even the most wary. "A Reply to the Bishop of Llandaff," who had written in defence of the war with France, was condemned as a "seditious libel," and its luckless author was imprisoned in Dorchester Gaol for two years, during which time the Liberal party subscribed £5,000 for him. He died three or four months after his release. Such was the erratic but unquestionably conscientious democrat whose correspondence with the great leader of his party forms the subject of the following letter:—

TEMPLE, Monday Evening.

My dear Sir, — I have just been devouring, rather than reading, a little volume of letters
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between Mr. Fox and G. Wakefield. Pray note the delightful spirit which breathes through every page of Fox's writings. Not only his simplicity and frankness and enthusiasm (after a life spent in debate, popular contest, dissipation, gaming, indolence—difficulties of every kind—all the worst enemies of simplicity and truth), but chiefly the instinctive and as it were constitutional love of liberty, and dislike or natural *disgust* at all manner of oppression and injustice.

The letters about the time of Wakefield's sentence, and pp. 215, and 227-231 are notable. Some peculiarities will strike you—as his love of genuine English. He calls Lorenzo de Medici, *Laurence*, p. 161.

G. Wakefield merits no small praise for his fortitude and independent spirit. His feeling so strongly the iniquity of Lord Thanet's sentence at a moment when he was so immediately occupied with his own is highly praiseworthy; as is the *disinterested* regret at finding that Fox was more fond of poetry and criticism than of a work from which he (Wakefield) expected more good to the cause of liberty. I rejoice every time I see any such fragments of Fox's admirable principles and character held up to the view of the present *de-generation*.

This is a very hurried scrawl, but I have interrupted my less agreeable labors so much with the book that I am forced to conclude hastily with assuring you that I am,

Yours faithfully,
H. BROUGHAM.

A journalist recently said that the tendency of the public mind at the beginning of this century was to confound persons and principles—thus believing that the holder of unorthodox opinions must necessarily be in his own person a breaker of all laws, human and divine; or, conversely, that the enunciator of lofty views and refined sentiments must lead a life of corresponding purity and elevation. Brougham's mind was too judicial to be open to this error, but he draws the line between precept and practice with startling sharpness when he speaks in the same letter of Fox's "admirable principles and *character*"—by which I suppose we are to understand natural disposition, warped by circumstances and association,—and his "life spent in gaming, dissipation, and indolence."

The well-known trial for libel on the prince regent so far eclipses all other crises through which the *Examiner* passed, that they are scarcely to be remembered. It was but the culmination of a series of government prosecutions, the third of which led to a curious complication.

John Scott, editor of the *London Magazine*—the brilliant essayist and journalist,

now, perhaps, chiefly remembered for his tragical death at Chalk Farm, in a duel with Mr. Christie—wrote an article in the *Stamford News*, of which he was then editor, denouncing flogging in the army. This being quoted in the *Examiner*, the Hunts were tried for libel, defended by Henry Brougham and acquitted; but Mr. Drakard, proprietor of the *Stamford News*, who was also defended by Brougham, was convicted a few days after at Lincoln, and sentenced to eighteen months' imprisonment. This case is cited by Charles Knight as an instance of the "glorious uncertainty of the law;" but there was a technical point at issue which seems to have escaped him. The original publication of an article which had been the subject of a government prosecution laid the publishers open on legal grounds to the charge of "malice," in spite of the failure to convict on the first process, for merely quoting it.

The following letter, written in the large, clear flowing hand of Henry Brougham's early manhood, is endorsed (at the request of Thornton Hunt) in the almost unintelligible hieroglyphics of his last years—"This relates to Drakard being brought up for judgment." The complaint against Cobbett shows that then, as now, the great Whig and Tory parties were split into innumerable factions, almost as formidable to each other as to the common foe.

TEMPLE, May, 29, 1811.

Dear Sir,—I find Cobbett persists in imputing to me the words falsely, and I really believe intentionally, put into my mouth by the *Courier*—"that the intention was highly criminal." It is worth while to contradict this, as I cannot help thinking that it affects both the party and his counsel—you will judge best how this may be done, but if possible something should be sent to Cobbett himself, I think, by Mr. D. in his own name, as he was present. You must remember that so far from admitting a "highly criminal intention," I expressly said that all I was bound to admit was some degree of criminality—that the verdict obliged me to admit this—but the whole drift of my remarks went to show that the slightest possible degree of guilt was to be ascribed to the publication and the author. It is quite scandalous that a newspaper, under color of reports of law proceedings, should be allowed to defame persons, and to defame them by putting words into their counsel's mouth.

Believe me, dear sir,
Yours, etc.,
H. BROUGHAM.

Another instance of the wilful misrepresentation of the *Courier* was the leaving out

Mr. Marriott's observation, and then making the attorney-general in reply say that "the last remark of the counsel was an answer to all that went before." The attorney applied this to what Mr. M. had said, and by leaving out all mention of Mr. M., it is made to apply to what I said—and this is the report which Cobbett chooses as the most accurate!

The next group of letters possessing any public interest relates to the stormy Parliamentary contest in which Brougham opposed Canning at Liverpool in 1812. The earliest reference to his intention to stand is contained in a letter, the first three paragraphs of which have been already published in the "Correspondence," referred to.

BROUGHAM, Tuesday.

My dear Sir,—You'll think me very idle not to have sooner acknowledged your letter, and thanked you both for the introduction and for "Acme and Septimius" (an old favorite). I am extremely pleased with both, and if you'll send me a little more of the poem, I should like to make a few free remarks. One or two turns struck me—but they were mere specks, and, I believe, from Dryden. In the translation I doubt respecting your two diminutives—I rather more than doubt, especially as to "poor fellow," which is inconsistent with the infinite refinement of the piece. Could you not contrive some more delicate diminutive? Also, could you not give the *sinister ante*? I think both you and Cowley give it the go-by. Now, I question if it does not convey some such meaning as that a change was effected in the love—at least in the degree of possession. If it mean anything bordering on indelicacy it is indeed better omitted.

I think highly indeed of the translation. *Acme, love!* is extremely happy—but I could fill a page with instances. Pray try "Arria and Poetus," from Martial.

These things are so much pleasanter than politics that I hate to make the transition. Our wise men certainly had resolved to dissolve—but there seems by my yesterday's letters some *hitch* in it. However, I doubt if it won't speedily take place, and then I shall in all probability be drawn in to stand for Liverpool, though as yet I have carefully avoided committing myself. There is some good to be done, even in the present state of things, by popular elections, and by bringing together large bodies of men to hear peaceably free and sound language. This is all I have to set against the great inconvenience of such elections, and of the kind of seat one has even after succeeding. But I really am much indebted to the Liverpool people for their friendly zeal, and I foresee it will be difficult to be off.

By the way, I have asked Roscoe (whose taste and skill in translation is exquisite) and Shepherd, a translator of almost equal skill, to

give me their remarks on your "Acme and Septimius," which you shall have.

Pray let me have a little more of the poem ["The Story of Rimini"], which takes my fancy wonderfully. I shall very soon send the extracts from my notes. I hope you got my packet from Lancashire; I wrote it at Allerton, but sent it from Knowsley, being sure a frank of mine ran great risk in the Liverpool post-office.

Yours ever truly, H. B.

I conclude your health is restored, but wish you would not risk it by going to hot theatres.

The Roscoe referred to above was the historian of Leo X. and Lorenzo de' Medici, whose career is as remarkable as any in the annals of literature. He began life at twelve years old as assistant in his father's market-garden, and ended it as banker and author, having, *ad interim*, practised as an attorney in the court of King's Bench and sat for Liverpool.

As "Acme and Septimius" is not included in Leigh Hunt's collected poems, and it may be found interesting to compare the translation with Brougham's critical remarks, I quote it from the *Examiner* of September 13, 1812.

THE ENTIRE AFFECTION.

(Imitated from the *Acme and Septimius* of Catullus.)

O Acme, love! Septimius cried,
As on his lap he held his bride, —
O if I love thee not, my wife,
Distractedly, and shall for life
As much as mortal madness can —
May I, a lost and lonely man,
Left in a desert to despair,
Come full upon a lion's glare!

He said: and Love, on tiptoe near him,
Clapp'd his little hands to hear him.

But Acme, to the lovely youth,
Just dropping back that rosy mouth,
With smoothing kisses thus replies
To his intoxicated eyes —
My Septimius, my life, my love,
My husband — name all names above —
So may our lasting service be
To this one only deity;

As still more sharply than in thine,
He thrills this doting frame of mine.

She said: and Love, on tiptoe near her,
Clapp'd his little hands to hear her.

Blest with this omen from above,
Their lives are one return of love.
For he, poor fellow, so possessed,
Is richer than with East and West,
And she, in her impassioned boy,
Finds all that she can frame of joy.

Now who has seen in Love's subjection,
Two souls more blest in their connection,
Or who a more entire affection?

Brougham was defeated at Liverpool. According to the account given in his "Life and Times" he failed from a cause which operated disastrously at the last general election — the perversity of running two Liberal candidates where there was a reasonable probability of carrying only one. Writing to Lord Grey on October 16, 1812, Brougham says: —

The starting two [Liberals] inflamed and combined our adversaries, and made the two parties [Corporation and Tories], with a large secession from the Whigs, unite against us. I had nine nights of the clubs, besides a regular speech each day at the poll. I delivered in that time one hundred and sixty speeches and odd; and yesterday and to-day, after being beaten, I rallied, and delivered regular speeches to the whole multitude.

Canning is said to have spent £20,000 on this election; Brougham under £8,000, raised by subscriptions among Liberals in many parts of the United Kingdom.

In these days of enlarged constituencies and the ballot it is difficult to understand how the votes polled by the different candidates in 1812 could in any way be regarded as representing the opinions of the two parties in the borough. In 1874 Lord Sandon stood at the head of the poll for Liverpool with over *twenty thousand* votes all given quietly in one day; the defeated candidates polling nearly *sixteen thousand* — in other words, five times as many as the aggregate of votes recorded in 1812.

BROUGHAM, Tuesday.*

My dear Sir, — I am just returned to my nest, and may really say, *desiderato acquiescimus lecto* — for such a stormy and restless three weeks I believe no mortal ever before had as I experienced during the Liverpool contest. My repose must be shortened — for I leave this on Saturday for town as term approaches. Thus, after all my labors last winter and summer, I have not had a week's rest.

We were defeated at Liverpool because we tried too much, and would not compromise so as to return Canning and myself; you will at once see why — and the more I reflect on it I rejoice the more that the unbending course was preferred to that which would have yoked me to a man so adverse in all points of principle.

The defeat indeed throws me out of Parliament for the present, because Westminster and other *really* popular places are closed, and the borough owners are not very likely to return a reformer, and one who has shown himself an indifferent party man. But I trust I may do as much good to the great cause of liberty by being out of Parliament for awhile,

* Post-mark, October 21, 1812.

as if I continued to share in the wranglings of that place. I hate what is commonly called public meetings; but the enemies or false friends of the cause greatly mistake me if they expect to find me destroyed by exclusion from the House of Commons.

In the mean time there is an interruption of the plans which I was maturing for next session—the full investigation of the property-tax, especially as affecting farmers, I had announced last session; the subject of tithes, I don't wish to conceal, it was my design to have grappled with, and I had not only gone far in preparing this, but had been enabled by some partial practical experiments made in this neighborhood, to ascertain that my principles were sound. These, and the American war, as connected with our manufacturing and trading interests, would have occupied me during the session, and I trust I shall find some men willing to take the charge of them for me while I am out.

I shall trouble you in a few days with the corrected copy of one of the many speeches delivered by me during the election—because I prize it for the effect it produced, and the untoward circumstances under which I made it,—or rather it burst from me—for it was the dictate of the moment. It consists of an invective on Pitt's *immortality*,* and I desire to be, in every respect, judged of by that speech. It was made to a real popular assembly of four or five thousand people, all in a state of agitation and passion not to be described. Many notes were taken; so that it is nearly correct.

This election has given new force to my conviction as to reform. Liverpool, unlike Westminster, is really a close borough, of one hundred thousand people not three thousand have voices, and these are the freemen admitted by birth and servitude. Think of such men as Roscoe having no vote, while every slave captain who served seven years' apprenticeship to that traffic of blood was enabled to vote against the person who made it a felony! If the *inhabitants* had voted, the good cause would have been supported by ninety-nine voices in one hundred. As it was we ran them very near—but the fear of losing their bread made many a poor creature vote against us, with tears and protestations that his heart was with us. Every means of influence was exhausted, and at last *gold* carried the day. But the popular enthusiasm cannot be described, it affects me beyond expression when I reflect on it—and, as a proof of its faithfulness, my last appearance among them and my departure were far more like a triumph than even my public entry, as to crowds—though tears and groans literally choked their huzzas. They only speak against the people who don't know them, or see the worst of them.

Believe me, yours truly,
H. BROUGHAM.

* "Immortal in the miseries of his devoted country."

Two months after Brougham's Liverpool defeat he was engaged in the memorable trial which was for many years the most prominent association with Leigh Hunt's name, either for sympathy or censure, in the minds of thousands. An attempt is sometimes made to assert that there was no "libel" to prosecute, and that Leigh Hunt was savagely punished for a phrase of playful satire, such as had repeatedly been passed over with a smile in the verses of Tom Moore. A cursory glance at the *Examiner* will dispel that illusion. There, week by week, the character, the conduct, and the companion of the prince regent were denounced with a trenchant and fearless scorn, a bitter, pitiless vigor, from which the truth took nothing of the sting. It does not at all affect the question that the cool unbiassed judgment of posterity has endorsed every word of those passionate denunciations; that every subsequent picture of the court of that day (even when painted by those who composed it) has justified the attacks of the contemporary journalist; that every word of censure was written in no party spirit, but felt to be a direct public duty: the libel was there, and it was impossible the libellers should escape.

It must be remembered, too, that in those times, with the hideous convulsions of the first French Revolution fresh in their memories, thoughtful men might well dread to see the avenging spirit of popular wrath let loose in England; when the elements of reform and revolution were so inextricably mixed that those who dreaded the latter shuddered at the sound of the former, and preferred rather to "bear the ills they had than to fly to others that they knew not of."

Leigh Hunt lived to see the reforms for which he strenuously pleaded come tardily but surely, without popular riot or social devastation, through the steady growth of public opinion, as he himself wrote, —

By means of mild and unforbidden men.

And if he suffered for being before his time, that is the common fate of the ardent intolerance of youth—the intolerance of evil, which, impatient at oppression and ignorance, would fain hurry on national crises that can only come safely by coming slowly.

Leigh Hunt at that time incurred an immense amount of unmerited obloquy from a wide-spread confusion of him with his namesake "Orator" Hunt. No two

men could have been more ludicrously dissimilar, and in the *Examiner* of July 19, 1812, Leigh Hunt recorded a lively protest against the identification : —

We ask any reader of ours [he says], who is nice in his notions of reputation, how he would feel if, in the midst of his pursuits in London, and at the moment, perhaps, when he is wrapping himself in the security of his good name, he finds himself accused of being in the very act of making a fool of himself at one hundred miles' distance, on a wooden elevation, and in the face of a roaring mob.

Leigh Hunt saw the danger of that confusion of principles as well as of persons of which we have already spoken—but he was sanguine that by its very excess it would right itself. The same article concludes with these eloquent words, suggested by an extraordinary tirade of Cobbett's, in which he eulogized Orator Hunt at the expense of Sir Samuel Romilly : —

What better means could have been taken to draw a happy distinction between coarseness and refinement, between meanness and elevation, between pettiness and enlargement, between emptiness and fulness, between error and rectitude, between ignorance and knowledge, between vice and virtue, between nothing and something, between false reform and true reform,—than to drag up a poor turbulent being [Henry Hunt] out of the mud of his politics, and place him by the side of the patriot lawyer? By extravagances like these the pretenders to reform bid fair to expose themselves to everybody; and by so doing they will render it the best service they ever did in their lives, and leave its true advocates a separate and respectable body.

This passage alone—and there are hundreds like it—should have been enough to vindicate Leigh Hunt from the contemporary charges of being a demagogue and a democrat. While holding up to ridicule and reprobation the abuses of the existing court, he painted an ideal monarch who should do justice and love mercy; and not all his early faith in Bonaparte's disinterested patriotism, or admiration for his genius, could blind him to the perils of revolution and the reactionary dangers of despotism. But the populace, when once roused to move at all, will not walk steadily between the lines laid down for it by its wisest and most temperate instructors; and there is infinite mundanity as well as spiritual wisdom in the Scriptural injunction, to let the wheat and the tares grow together unto the harvest, lest when ye pull up the tares ye pull up the wheat also.

The *Examiner's* attack on the prince

regent was direct and unsparing, and the truth of a libel has in a legal sense nothing to do with its criminality. The case excited the strongest interest in all ranks. To Earl Grey, Brougham wrote on the 25th November, 1812 : —

Hunt's trial comes on about the middle of the week after next, and they are in some consternation at Carlton House. Two several attempts have been made to buy him off, but of course in vain; one of them came almost directly from Macmahon soon after the trial put off last July. I feel somewhat anxious about the verdict, but am full of confidence as to the defence and its effects all over the country; it will be a thousand times more unpleasant than the libel.

Brougham's account of his line of defence, the key to which is given in the words we have italicized, is very characteristic, not only of the writer, but of the spirit of the times. The masked battery of contempt for the Rosa-Matilda warblings of the *Morning Post*,—apostrophizing the prince regent as

Adonis! in thy shape and face
A liberal heart and princely grace
In thee are seen combined, —

from behind which Brougham hurled strong condemnation at the object of those absurd panegyrics, was hailed at the time as a triumph of subtlety and security. But every one now must agree with Leigh Hunt himself in preferring infinitely the close of the defence, when, throwing aside all irony, Brougham pleaded in a strain of impassioned fervor for freedom of the press—that voice of the people whose outspoken rebuke is the only punishment which can reach a certain class of offences and offenders.

Of course the passage in Lord Ellenborough's charge to which Brougham refers so indignantly in the following extract from a subsequent letter to Lord Grey, is that in which Ellenborough describes "the counsel for the defendants" as "inoculated with all the poison of his clients' publication." Throughout his whole charge the judge begged the question of guilt in a manner which would not be tolerated now.

As I conclude Hunt's trial interests you I write to say that it came on this morning at nine. A full special jury of twelve was procured with infinite pains, and great bustle and interest excited in town about it. The prosecution was conducted by Garrow (solicitor-general) and defence by me. Garrow reserved himself in a way quite new and very cowardly saying ten words, and waiting for me, so that

all he said was in reply. I fired for two hours very close and hard into the prince — on all points, public and private — and in such a way that they *could not* find any opening to break in upon, and were therefore prevented from interrupting me. They tried twice early, but Ellenborough, losing temper, fell into a gross error, and was fairly beaten, which gave me the rest of the day pretty easy. In summing up he attacked me with a personal bitterness wholly unknown in a court, and towards a counsel — who, you know, is presumed to speak his client's sentiments — most gross and unjustifiable. All the profession are with me, and he is either in a scrape or next door to it. . . . After all his fury, the jury, to his infinite astonishment, hesitated, and then *withdrew*. I was obliged to leave the court to attend a consultation elsewhere, so don't know the result, but there is scarcely a chance. I have heard a report of the verdict being soon after given, of guilty; but the retiring is of itself really a victory, in the circumstances.

He adds in a postscript: —

Accounts just received that in twenty or twenty-five minutes (passed by the court in great agitation), they found us *guilty*.

The sentence, as most people remember, was a fine of £500 and two years' imprisonment in separate prisons, to each brother.

When we recollect Thackeray's burning denunciation of the vices of George the Fourth, ending with the emphatic question, "Would we bear him now?" and the thunder of applause which invariably answered him, we can but reflect how happily times are changed, both for the throne and the people.

The following letters were written by Brougham to Leigh Hunt during his imprisonment: —

TEMPLE, Monday,
(Postmark, May 18, 1813.)

My dear Sir, — Perceiving in yesterday's *Examiner* that you mention "indisposition," I am desirous of knowing whether you have had any relapse since I saw you.

I have repeatedly been on the verge of seeing you, and always stopped by some unforeseen business coming upon me. But I expect to make good my visit in spite of all interrupting one day this week.

Believe me, truly yours,

H. BROUGHAM.

There is no truth in the account in the newspapers of my being in Parliament, any more than in the other story in the *Carlton House* journals of my going abroad with *Lord and Lady Oxford*, whom I think I have seen exactly twice in my life.

This Lord and Lady Oxford were the eccentric couple afterwards so notorious

for their Bonapartist intrigues. Raikes tells a characteristic story of them in his "Journal" (vol. iv. p. 14). When Lord Oxford was in France and his wife in Italy in 1815, their correspondence, regularly opened by the French police, supplied the government with full information of the plots for bringing back the ex-emperor. The illness of a favorite spaniel had been mentioned in one of the intercepted letters, and so little pretence was made of concealing the system of espionage that a *gendarme* who stopped Lord Oxford's carriage at the frontier to examine his papers, accosted him with the sarcastic inquiry, "*Bon jour, milord, comment se porte votre petit chien?*"

In 1815 Leigh Hunt issued an enlarged edition of "The Feast of the Poets," dedicated to Thomas Mitchell, the translator of Aristophanes. It is alluded to by Brougham in the following letter: —

TEMPLE, Thursday.

My dear Sir, — I have been in expectation of seeing you daily since my return from Kent, where I went during the holidays. I fear I must delay my visit for a few days longer, but I cannot defer my congratulations on these important events, so useful to the cause of constitutional liberty and improvement. The immediate and great reduction of the power of the crown may fairly be expected to arise from peace, and the lopping off of so much patronage, and the cessation of the alarm (so useful to arbitrary power) in which we have been kept for the last twenty years. What the event in France may be is less plain — but whatever government is there formed must be a peaceful one.

I copy a passage from a letter just received from my friend Mr. Jeffrey of Edinburgh, in answer to one I wrote respecting your poem. "I read 'The Feast of the Poets' with great delight in America, but never knew the author till I received your letter. I shall be glad to be of use to him when he attempts something more considerable. The present work seems too slight to justify a review." You will perceive that he had seen only the original publication.

Yours truly,

H. BROUGHAM.

I hope you liked Lord Grey's speech about Poland.

In 1827 the "Society for the Diffusion of Useful Knowledge" was founded by Brougham, Charles Knight, and others prominent in the cause of education. The following letters relate to a work begun for that society by Leigh Hunt; subsequently issued in supplements to *Leigh Hunt's London Journal* as "The Streets of London;" and finally, much altered

and enlarged, appearing as the most popular of all his books, "The Town:"—

APPLEBY. *Thursday,*
August 27, 1829.

My dear Sir,—Your letter which I have just received is very agreeable to me, both because it lets me know that you are well, and because it conveys a wish to co-operate in one of the most important of the society's works. I write by this post to Mr. Mill, who is at the head of that department, and I have strongly recommended to him the opening an immediate correspondence with you on both the matters you mention. I know he will be as ready to do this as I am to suggest it. I have sent him an extract of the latter part of your letter. Almost all that the society publishes passes through my hands in one stage or another—and I use some freedom in cutting out as well as in suggesting alterations and additions (the latter chiefly to inculcate good feeling and unity). This seems to be incumbent upon me—as our names are given—and I am sure you will hold yourself safe in my hands.

Believe me, truly yours,
H. BROUGHAM.

"Mr. Mill" was of course the historian of India, John Stuart Mill's father.

Thursday.

My dear Sir,—I came out of court when you called for me, after I had answered your question, but you were gone.

It seems to me that you are upon exactly the right road in what you have written. The great object to be kept in view in what follows is to combine as much as possible *sound instruction* with matter of mere amusement and ordinary interest. There is hardly a part of your design that may not be connected with useful observation of men and things, such as the praise of good men, and men who have rendered service to humanity by their living, or writing, or suffering—the approbation of sound and enlightened policy—the abhorrence of vice, public or private—the commendation of the arts of peace, and magnifying of all that tends to exalt and improve mankind—the contempt of vain and bootless military glory, and the detestation of its effects. A great city full of schools, and hospitals, and useful institutions of other kinds, and abounding too in monuments of the triumphs of the worse parts of our nature, furnishes many themes at every step, and the men whose residences you everywhere see afford similar topics.

Yours truly,
H. BROUGHAM.

These are the last unpublished letters before me. Their chief interest lies in the glimpses they afford of the thoughts and opinions of Brougham in his youth; and the vivid incidental picture of a state of feeling existing between the crown and its more enlightened subjects such as, for-

tunately, in this day we find it difficult to realize.

The mutual regard and respect of the two correspondents was life-long, and Leigh Hunt dedicated "Captain Sword and Captain Pen" to his early champion in words to which all readers will readily assent—pausing perhaps on the closing parenthesis:—

Great in office for what he did for the world, greater out of it for calmly awaiting his time to do more; the promoter of education; the expediter of justice; the liberator from slavery; and (what is the rarest virtue in a statesman) always a denouncer of war.

From The Spectator.

PARTIAL DEAFNESS.

THE melancholy spring through which England has this year passed—a spring only to be distinguished from winter by the want of elasticity in the air, and by the steady malice of the north-east wind, which in winter is seldom so uninterruptedly master of the situation, being whipped or soothed into quiescence every now and then by hail or snow—produced, among other consequences, an epidemic of deafness. Quite an unusual crowd of persons were affected by a variety of bronchial disease which swells or chokes the Eustachian tubes till air cannot reach the ear from the reverse side, and patients become temporarily, sometimes for many weeks, more or less completely deaf. The severity of the attack varies considerably, not only as between individuals, but from day to day, until those affected enjoy opportunities of "feeling how deaf people feel" of a very unusual kind, opportunities usually neglected out of sheer alarm, the sufferers being "convinced," in spite of doctors and experienced friends, that they will never quite recover hearing again. The writer of this paper was one of those affected, and as he had been the subject of similar attacks before, and had a fair confidence—not quite perfect—that this one also would pass away, he amused himself by trying to estimate dispassionately the extent and kind of his losses and gains. At first, while the deafness was slight, just enough, to use the most familiar test, to debar him from hearing the ticking of a watch pressed closely to the ear, he was not certain that the deprivation was all pure loss. There was a good deal of compensation in the relief from certain nervous troubles which affect more or less

severely all residents in great cities. The roar of London—that ever-present pressure of vague sound which is never absent from the Londoner's ear, though sometimes forgotten, and which, unobserved, affects all London voices and all London music—was suddenly and incomprehensibly stilled, as in the earliest dawn. He says "stilled" advisedly, and not "suspended," for the roar must still have been audible in some faint degree, or the patient would have felt, what he did not feel,—that dreadful increase in the effect of solitude produced by the cessation of an accustomed and all-pervading noise, that severe shock of expectancy or dread which comes to men who, sleeping constantly under the noise of factory engines or the engines of a steamboat, find it come suddenly to an end. This effect of deafness was slightly soothing, a sort of transfer from town to country, or rather from the sounds of a crowded street to the comparative quiet of a carpeted house, and was, on the whole, rather pleasant than the reverse. So was the change produced by the inability to hear the sea. The writer, unfortunately for himself, feels usually in a very acute degree the melancholy of the sea, that impression of unrest, turmoil, and sullen implacability which the sea frequently produces even on men who, like himself, have experience of long and distant voyages. That the sea is unfriendly to everything in man, except, indeed, his digestion, was his permanent impression; but being ordered to the seaside while still deaf, he was surprised to find how completely this impression depended upon the sense of hearing. While still able to hear clear voices directly addressing him, he had lost the power of hearing either the plash of water against the piles of a pier, or the dull roar of the waves breaking on the shore, and with the sound the melancholy impression due to it had departed. The sea, though rough and dingy-colored from the weather, had the pleasantness of a broad river or lake, the agreeable attractiveness which almost everything in nature possesses while in motion. The eye judged for itself alone, without interference from the ear; and to the eye the swelling and falling water, and the play of the white foam on the waves, and the self-sustained, and as it were, wilful mobility of the far-away masses, were, on the whole, cheerful, and even gladdening sights, like the view of an amused and lively crowd in a well-painted picture. The lights were perpetually coming out, and the sombre murmur was gone.

Part of this was due, no doubt, to what must be the very first impression on a deaf man, when not embittered or distracted by the conscious pressure of his loss,—the change of the world from reality into a panorama. A street in London, from a noisy scene of activity, became in a day a scene in a theatre, where silent pedestrians, and noiseless horses, and unrumbling carriages moved incessantly past, towards silent and therefore much nearer vistas of distance. All English townsmen, though they may never have been deaf, have experienced in part the same effect after a heavy fall of snow. The strand of a full and rather noisy watering-place was transformed into a place exactly like it, but seen in a camera-obscura, the crowds coming and going in silence, and apparently without purpose, as they do when seen on the table of that contrivance, once so universal in watering-places, but now apparently out of fashion or popularity. As when looking at the picture on the table, too, one became aware, as one watched, that noiseless movement always appears to be movement without volition, effortless movement which can never stop, and to dream of what one would think of the placidity or permanence of the universe, could one hear the rushing of the orbs as they pass through space. This change was not unpleasant, more especially as there was, even in London, no danger attending it. It is popularly supposed that the deaf are in peculiar danger in a crowded city, but this is, the writer is convinced, except at night-time, an error, the difficulty caused by the want of hearing being counterbalanced by the absence of the bewilderment produced by rushing noise. A deaf-and-dumb artist, many years ago, saved some of Messrs. Pickford's horses in a fire, at a moment when the animals refused to move and the firemen were temporarily driven back. He accounted for his success to the writer, who had been astonished by his apparently reckless daring, by writing, "All those men heard the flames, but I only saw them."

Then several of the minor annoyances of life suddenly disappear to the partially deaf man. The doors do not bang, but only shut audibly; the fire-irons do not clang, but only fall *avec intention*; children's crying is, not savage, but only remonstrative; and all voices are found to be in varying degrees soft and sweet, the last pleasurable impression being perhaps exaggerated by the new grace always developed in the deaf, the painful willingness

to hear, and so satisfy themselves that the power of hearing has not died away.

But the patient was not to be left with the impression that the deaf exaggerated their grievance out of querulousness, or a desire to obtain the sympathy seldom refused to the sick, unless, indeed, they are sea-sick, but so rarely accorded in full and fitting measure to the deaf. He never became stone-deaf, or anything like it, but for a week he became "as deaf as a post," as deaf as an old man usually is, — that is to say, too deaf to hear ordinary voices, or any voices not addressing themselves to him, so deaf as to require exertion in his interlocutors, to miss accidental remarks, to be insensible to remarks not prefaced by some summons calling his attention, and to be compelled constantly to ask the reiteration of a sentence. Oh! the weariness of that last deficiency, the pain of feeling oneself transformed into a bore, the grief of seeing the faint look of surprised weariness which crosses even the most patient of faces, when the exertion to speak clearly has been made and has failed. The relief at first felt in the lowering of all sounds soon passes into pain at the absence of all sounds, and you would bear any distraction from clatter, if only you might hear the voices at your own dinner-table, or talk to the children without wearying their impatience, or hear the trivialities which soften conversation, yet seem quite silly if formally repeated. We suspect that people partially deaf, "hard of hearing," as it is called, have many painful moments, when it seems to them, in spite of their better selves, as if all the world had conspired to whisper, and that its object must be to isolate them from the talk. And we know, even from a short experience, that none of the minor trials are greater than the converse of that, — the sense gathered through the eyes that all about you are, out of affection, or respect, or courtesy, pitching conversation above its natural level, and so enduring through the ears a pain which you, being deaf, would gladly endure, but which to them takes away all the grace and much of the charm of conversation. We are told that with seriously deaf people, people who are compelled to use a trumpet to catch every sound, a slight or insignificant remark becomes a torment, because in listening to it they have thrown away an exertion, have parted with energy for nothing; but to the partially or temporarily deaf, the inability to hear insignificant remarks becomes for a time a torture. It dies away, no doubt, with habit,

but relief is purchased at the price of a self-seclusion, a retreat upon the inner forces, which to some men is intolerable, and is no less intolerable to the deaf than it is to those who can hear. [Odd, think the deaf, that there should be no descriptive adjective for those possessed of the faculty of hearing, while there is one for those deprived of it, — a new instance of the tyranny of the majority.] The pain is increased, too, at least it was in this writer's case, by a reluctance to speak, arising not so much from inability to modulate his voice — that does not come till a very late stage of the disorder, and sometimes not at all — but from a dislike to a kind of reverberation in the ear or throat, a hollowness in the sound of his own voice which it would tax an aurist to explain. The effect on air of a spoken word must surely be outside the mouth, not inside, yet undoubtedly the effect on the hearing of their own voices and other people's voices is, with some deaf people, totally different. The sense of a great loss, once established, increases, of course, with the increase of the defect, until at last, when writing must be used, they feel as if nothing could compensate them for their affliction, recognize that one of the windows of the soul is shut, and grow sometimes more weary than the blind. There is a theory abroad that the latter are more patient than the deaf, but we believe it to be incorrect, and to be the result of the greater *visibility* of their dependence upon others. The deaf are almost equally worried, though of course in a less degree, they do not acquire the calm which in so many instances is the blessing of the blind, and they are liable in morbid states of mind to a temporary, but terrible apprehension, an exaggeration of dread about their eyesight, a fear that both windows of the soul may be shut, which in its intensity is probably the most awful of dreamy fears, far worse than the apprehension which doctors know under the title of *timor mortis*, which is not the "fear of death," but a special and horrible form of hypochondria, usually — we have seen two marked cases — passing away when death is really near.

From The Economist.

THE EXTRADITION QUARREL.

GENERAL GRANT has sent Congress a message on the subject of the Winslow extradition case, of which we do not think

the British government has any reason to complain. Indeed, had the British government treated the Extradition Treaty of 1842 with the United States, as excepted from the operation of our Act of 1870, which requires a stipulation that no criminal delivered up shall be tried, without being set at large in the interval for any crime on the charge of which he was not originally delivered up; and had they delivered up Winslow and Brent, without asking for any such stipulation, we suspect that the lawyers would have been able to show a very plausible case for that construction of the Act of 1870, and that the politicians would have been very little inclined to make a fuss about the advice of the lawyers. No doubt it might possibly be an objectionable thing to allow all our neighbors to get a criminal delivered up to them on evidence of one crime, and then try him for another very different and much more political kind of crime. If we were to deliver a man up on good *prima facie* evidence of murder, and then so soon as the criminal had reached the country in which he was to be tried, an accusation of a very different kind, such as that of "conspiracy to murder," was substituted — a charge which might easily be sustained by evidence of a kind derived from political associations and principles, — we might find ourselves landed in a certain amount of complicity with the political severities of despotic countries. We doubt if, even on this ground, there be really substantial excuse for serious objection, as we shall attempt to show almost immediately. But, at all events, whatever objection there might be would not apply to the United States. There is no country where the political system is more thoroughly free from the charge of political austerity than the United States. There, at least, there was little or no danger of any charge of a substantially political character being veiled under a charge of a more ordinary criminal kind. And therefore we cannot help regretting that the legal view which we should have supposed the sound and natural one and which certainly does recommend itself to some sound lawyers, — namely, that the Extradition Treaty of 1842 was excepted under one of the clauses of the Act of 1870 from the operation of the new arrangement, — has not been found trustworthy. We do not even now know what the objection of the crown lawyers to that view of the case was. But whether it were sound or not we cannot help thinking that it would

have been in many respects desirable if our old extradition treaty with the United States could have been left to work on somewhat easier and less restricted terms than the extradition treaties which we have signed with countries where there is more reason to fear political persecution. However, that appears to be now out of the question, for some reason or other. The crown lawyers are persuaded that the Act of 1870 binds us in relation to the criminals extradited under the old treaty with the United States, no less than in relation to criminals delivered up under extradition treaties made since that date. And we have, therefore, to consider on what terms we shall renew our extradition arrangements with the United States, if, as we hope we may gather from the tone of General Grant's message to Congress, the government of the United States should be willing to renew them.

What the United States desire, but what apparently the Act of 1870, as it stands, will not permit, is that if we conclude a new extradition treaty with America, we should not only include all the offences for which the newer act provides — especially making and issuing false money, larceny, obtaining property by false pretences, criminal frauds by trustees and directors of public companies, abduction, child-stealing, and so on — none of which are included in our old treaty with the United States — but that in addition to this we should give power to the United States government to try the criminals surrendered, after surrender, not only for the offences with which they should have been charged in this country, but also for any others included in the list of those for which extradition is permitted, no political or semi-political offences being of course included in that number. The reasons for such a course are very obvious. It is not easy for a *prima facie* inquiry to make out the exact crime of which a man has been guilty. Adequate evidence is offered to prove that there is a very strong case of suspicion against him, but it is often very difficult to say what is the exact charge which can be proved — whether, for instance, he can be proved guilty of forgery or only of uttering forged paper, whether he can be proved guilty of larceny or only of embezzlement. And obviously it is not a very encouraging thing for any country to have to waste all the expense and trouble devoted to the arrest of a fugitive criminal of this kind, only because some slight mistake, rather than the proper name for the thing, than

the thing itself, was made in charging the criminal in the original accusation before the magistrates.

It stands to reason that if such a waste of wealth, valuable energy, and time as is implied in this defeat of justice, on purely technical ground, can be avoided, it ought to be avoided, and we ought to look very well into the reasons which are alleged against permitting so reasonable a course. Now the reasons alleged are these. It is said that this course would be perfectly safe with America, but that it would not be at all safe with some of our more despotic Continental neighbors—that they would not unfrequently get a fugitive surrendered on one ground which had no element of political motive in it, and then proceed to try him on another which had such an element pretty distinctly visible; for instance that, having been claimed for forgery, and surrendered on adequate *prima facie* evidence of forgery, he might be tried for murder under conditions which would reduce the murder to an act of political revolt. Now it cannot be denied that there may be some sort of ground for such a fear. But when we come to weigh the danger against the obvious and very great mischief of the present strict rule, we must say that the danger of injury to the State, and even to the moral rights of individuals, is far greater through the present restriction than through the proposed enlargement of the principle. In the first place, where a despotic government wishes to punish a man of dangerous political character, and can safely punish him for an ordinary crime, for his commission of which it has already accumulated a considerable mass of evidence, it is exceedingly unlikely that it will waste the evidence accumulated on the committal of the criminal, and indict him for some new offence. If the government wishes to stop his mouth and imprison him, the chances are great that it can do so best on the charge of which he has already been accused. But even if it be otherwise, so long as we stipulate that no political charge at all shall be included in the list of those for which he is triable after his surrender, there is not very much danger of a miscarriage of justice. Certainly, it is possible that, whereas he was surrendered only on evidence of a kind not admitting of capital punishment, he might be afterwards tried for one admitting of capital punishment, and so lose his life, though the motive of the government in prosecuting him should have been chiefly political. But that, too, might be easily pro-

vided against by stipulating that he might only be retried for any other offence included in our law of extradition, on condition that it was one punishable by no severer punishment than the one for which his surrender was demanded and obtained. Such a provision would make it impossible to get a man surrendered as a forger and then to try him for murder. And so long as the kind of punishment was not severer, we do not see what even the most despotic government would have to gain by trying a fugitive criminal for an offence different from that for which he had been surrendered.

On the whole, if we could so amend our Act of 1870 as to admit the trial of any fugitive criminal surrendered to a foreign nation for any offence on the list of those included in the act, except for any punishable by severer penalties than the crime for which he were surrendered, we do not believe that any serious injustice would be done, while very serious injustice and very great cost would certainly be avoided. As we observed in a previous article, there should clearly be a limit to the sacrifice this country is willing to make for the sake of protecting the asylum of political refugees. So long as these political refugees are political refugees only, it is most important that we should secure them a safe refuge, and decline altogether to give them up. It is even for the advantage of foreign despotisms themselves that those who are tempted to revolt against the oppressiveness of their system, should not be driven to utter despair by the deficiency of any safe asylum against their rulers' vengeance. But when it comes to making a very great sacrifice in the way of discipline and security, and this for the sake of political refugees who are charged on at least good *prima facie* evidence with ordinary and non-political crimes, we think the country ought to hesitate. It is all very well to throw our shield over a despairing patriot, but when the despairing patriot is a probable forger, or swindler, or thief, we think we ought to pause and count the cost. The United States have as much interest as we have in putting an end to that unfortunate state of things which bids fair to make London, or Quebec, or Montreal the asylum of a host of American scoundrels, and New York or Boston the asylum of a host of British scoundrels. We trust that the two governments will approach each other as frankly as possible with an honest resolve not to let small obstacles stand in the way of the conclusion of a new treaty, and in

the arrangement of its terms we must say we think Great Britain might well concede something, on her side, of that excessive sentimentalist sympathy with political offenders of doubtful morality, which at present seems to be the chief obstacle to a cordial understanding with the United States.

From The Spectator.

LUNAR STUDIES.

WE wonder how many selenographers, properly so called, there are in this country. The moon has been mapped and measured, and surveyed generally; her motions have been determined so precisely, that it was regarded as quite a serious matter when lately a very minute irregularity was discovered in her movements of which astronomers could give no account; her heat and light have been measured, and we have found how little she deserves to be called the "cold, pale moon," seeing that she is, on the whole, more nearly black than white, and at lunar noonday hotter than boiling water. But the selenographers proper form a class by themselves. They take a lunar crater, or walled plain, or mountain ridge, as the case may be, and in that chosen locality set up their rest. They study its aspect at lunar sunrise, midday, and sunset, now when the moon is swayed one way in her libration or balancing, anon when she is swayed the reverse way. Every spot and crevice upon or around the region selected is examined again and again for signs of change, and every appearance which can be regarded as in the slightest degree suggesting that there has been a change, is entered down in the record by which one day the world is to be convinced that the moon is not the dull, dead world astronomers have supposed. It argues well for the cause of selenography that a portly volume has recently been published for their benefit and encouragement. We infer that there must be a tolerably large selenographical constituency. The author of the work referred to, Mr. Neison, has been eight or nine years at work collecting material for this book, — selenographical fragments, so to speak. And moreover, which is even more to the purpose, so far as the future of selenography is concerned, he has made laudable efforts to show that there is certainly a good deal of air upon the moon, probably plenty of moisture, and possibly not a little vegetation.

If there is not vegetation, there is, at any rate, he thinks, a process of alternate tarnishing and brightening-up of portions of the moon's surface; and if this is not exactly equivalent to life on the moon, it has a life-like effect, calculated to be very encouraging to his selenographical brethren.

First, as to the air and moisture, for even selenographers admit that life would not be very comfortable in a dry and airless world. It is reasonable to assume that when first starting in the solar system as a full-fledged planet, the moon had her fair share of both air and water. Her mass being about the eighty-first part of the earth's, she was entitled to an atmosphere similarly proportioned in quantity to the earth's. Now the earth has fifty-three hundred millions of millions of tons of air, and therefore the moon in the same stage of planetary existence should have had more than sixty-five millions of millions of tons. Again, if the average depth of the ocean is about two miles, the earth has some two hundred and thirty times as many tons of water as of air; and the moon, in the same stage, should have had, therefore, nearly fifteen thousand millions of millions of tons of water. But then the moon is very old, — not in years, indeed, but as a planet. She is in the sere and yellow leaf, even if she has not reached the winter of her existence. She is decrepit, if not dead; and as planets grow old, they lose more and more of their air, getting at the same time drier and drier. The air and water are not, indeed, bodily removed, but gradually absorbed by the surface. Taking due account of this circumstance, Mr. Neison will only allow the moon about eleven millions of millions of tons of air, and no surface-water at all, only a moist crust. But as he truly remarks, that is a great deal of air, after all, and a great deal might happen with a moist crust which would not happen with a dry one. Eleven millions of millions of tons of air should count for something in the economy of our satellite, and the warm rays of the sun poured during the long lunar day (a fortnight of our time) without intermission upon the moon's moist surface ought to effect changes of some sort. If selenographers have not yet noted important changes thus occasioned, then all the better reason is there why they should examine the lunar features more and more searchingly, till they find the evidence they require.

There are two lunar spots which the selenographer regards with special favor,

because of the evidence they seem to give of change. One is a crater lying on the so-called Sea of Serenity, which some popular lunar observers regard as the left eye of the man in the moon. Here there was once a deep crater, nearly seven miles across, a very distinct and obvious feature even with the small telescope (less than four inches in aperture) used by Beer and Mädler in forming their celebrated chart. But ten years ago, the skillful astronomer Schmidt, a selenographer of selenographers—who has, in fact, given the best energies of his life to moon-gazing—found this crater missing. When he announced the fact to the scientific world, other astronomers, armed with very powerful instruments, looked for the crater which had been so clearly seen with Mädler's small telescope; but though they found a crater, it was nothing like the crater described by Mädler. The present crater is scarcely two miles in diameter, and only just visible with powerful telescopes; all around it there is a shallow depression, occupying a region about as large as the whole crater had been before. It seems impossible to doubt that a great change has taken place here, and the question arises whether the change has been produced by volcanic activity or otherwise. Sir John Herschel pronounced somewhat confidently in favor of the former hypothesis. "The most plausible conjecture," said he, "as to the cause of this disappearance seems to be the filling-up of the crater from beneath by an effusion of viscous lava, which, overflowing the rim on all sides, may have so flowed down the outer slope as to efface its ruggedness, and convert it into a gradual declivity, casting no stray shadows." But how tremendous the volcanic energy required to fill with lava a crater nearly seven miles in diameter, and more than half a mile deep! The volcanic hypothesis seems on this account utterly incredible, for if such energy resided in the moon's interior, we should find her whole surface continually changing. Far more probable seems the idea that the wall of this crater has simply fallen in, scattering its fragments over what had been the floor of the crater. The forces at work on the moon are quite competent to throw down steep crater-walls like those which seem formerly to have girt about this deep cavity. Under the tremendous and long-lasting heat of the lunar midday sun, the rock substance of the moon's surface must expand, while during the intense cold of the lunar night, a corresponding

contraction must take place. Under the influence of this alternate expansion and contraction, the strongest of the lunar crater-walls must be tending to their downfall. Their substance must be gradually crumbling away. From time to time, large masses must topple over, and occasionally long ranges of crater-wall must be brought to the ground. It seems conceivable enough, certainly far more probable than any other interpretation which has been offered, that the crater-wall first missed by Schmidt was destroyed in this way.

The other favorite region of selenographers is a much larger one,—the great walled plain called Plato, and by the older astronomers the Greater Black Lake, sixty miles in diameter, and surrounded by mountains, some of which rise nearly two thousand five hundred yards above the level of the floor. According to the selenographers, the whole of this floor changes in aspect regularly during each lunar day,—the lunar day, be it remembered, being equal in length to what we terrestrials term a lunar month. In the lunar morning hours the floor is light, during lunar midday it is dark, and in the evening it grows light again. The idea of selenographers as to the cause of this change is that some process of vegetation takes place over this depressed floor (it lies more than half a mile below the mean lunar level); or else that vapors ascend when the sun's heat is poured on the floor and tarnish it in some way, while after midday heat has passed the vapors are reabsorbed, and the surface resumes its former lustre. The profane, however, urge that the whole matter is a mere effect of contrast: in the morning and evening the black shadows of the surrounding mountains are thrown on part of the floor, and the rest by contrast looks light, whereas at midday the same mountains (which are white and bright) form a ring of light all round the floor, which, therefore, looks dark by contrast. The selenographers maintain, on the contrary, that they have not been deceived by contrast, and *adhuc sub judice lis est*.

One can understand that to those who have leisure to pore, after the selenographic fashion, into the details of our satellite's surface, the work must possess a certain charm. Though the nearest of all the heavenly bodies, the moon still lies so far away that very minute apparent signs of change imply really important disturbances; and though astronomers have given up the idea that there

can be life of any sort on the surface of our satellite, yet she still has interest for many, as a world which was probably at one time the abode of many orders of living creatures.

From Nature.

THE REMINGTON TYPE-WRITING MACHINE.

IN making comparison between the physical and the biological sciences, it is not difficult to recognize how it comes that they differ in one essential element. In the *physical* the forces in action are comparatively few, and of very different degrees of intensity. The centripetal and centrifugal tendencies, for instance, of moons and planets so far exceed the mutual attractions of the planets *inter sese*, that in the rough calculation of their orbits the latter may be omitted from consideration.

In the study of the phenomena of life, however, the innumerable forces which are found to be in play are so fairly balanced in their magnitude and tendencies, that the task of dissociating and classifying them is almost beyond the means at the disposal of the human mind.

In the study of the various machines which have from time to time been constructed with the purpose of economizing or superseding the employment of the engine muscle,—expensive in the nature of the fuel it requires, although it is so economical in the way in which it uses it,—a similar division may be made. In the steam-engine, however developed, the waste of force essential to the working of the valves is nothing in comparison to the power employed, nor in the telegraphic needle is much done by the current except the actual record which it makes.

But on looking at the sewing-machine or the more novel type-printing apparatus we can see that the ingenuity of America, stimulated by the idea of practical advantage, has been developed in a direction, not towards the discovery of more economic principles, but to the employment of forces already known in the mastery of complicated operations previously thought to be beyond the powers of any other mechanism than the hand of man. To obtain these results an entirely different conception has to be introduced. The power at the disposal of the operator has not to be directed simply to the performance of a single operation, like the movement of the needle in the sewing-machine

or the impressing of the letter in the type-writer, but has to be distributed so that it may perform a series of simultaneous operations, all leading to a complicated result. The treadle of the sewing-machine in its movement, besides the rise and fall of the needle which it produces, works the thread loop-slip, shifts the fabric, and unwinds the cotton. The pressure on any one of the keys of the type-writer, besides the impression which it stamps upon the paper, shifts that paper, inks the type, and places each letter in its proper sequence.

In order properly to balance all these varied actions, great ingenuity and much practical experiment are necessary, and of the "Remington type-writer," the only satisfactory instrument of the kind yet brought to public notice, the introducers, the most prominent of whom is Mr. Jefferson M. Clough, superintendent of the Remington armory, tells us that "during the time required to perfect the invention, about fifty machines were constructed, all upon the same general principle, but each differing more or less in the minor details."

The general principle is a most ingenious one. It is evident that the great difficulty in the construction of such an instrument is that it is necessary to have a large number of signs—letters of the alphabet, figures, stops, etc., arranged in such a manner that any one of them, may, by the simple pressure on a corresponding key-note, be printed in any required order or sequence upon a paper sheet placed ready to receive it. There are many more or less elaborate ways in which this may be accomplished; none, we believe, so simple as that adopted by the Messrs. Remington. Their apparatus may be compared to a piano, even in its details. There is a keyboard, on each key of which the letter it impresses is to be found indicated. The depression of each key raises a hammer. This hammer, however, instead of being covered with a felted pad, as in the piano, carries at its extremity a type-cast letter, which, in place of a stretched wire, strikes on a piece of paper the impression of the letter which it bears. So far the similarity between the two instruments is very close. But to produce sounds and to perpetuate impressions in black and white in any definite sequence, are two very different things, the latter being much the more difficult; and herein lies the ingenuity of the principle adopted in the type-writer. The hammers, instead of being arranged in one line, as in the piano, form a circle,

in the exact centre of which each type-letter at the end of its hammer-lever strikes upwards. Two keys struck at the same time must consequently cause two type-letters to clash in their attempt to reach the same spot, the centre of the circle. This, however, does no injury to the instrument, although care must be taken not to cause it. Above the circle of levers the recording paper is situated, rolling on a drum, towards the operator, the whole being so placed that just before any letter of a word is struck that part of the paper on which the letter has to be impressed is nearly over the middle of the lever-circle. The depression of the key first moves the paper into the exact position and then prints the letter, figure, or stop. An independent key produces the blank between each two words.

The method of inking is excellent and unexpected. A strip of fine fabric, saturated with the ink, is carried between two rollers so arranged that it intervenes *between* the paper to be printed on and the centre of the lever-circle. The type-carrying hammers do not, therefore, strike the paper itself at all, but only the ink-saturated band, which, as a result of the percussion, comes in contact with the recording paper, *but only in the parts where contact is made*, which are nothing more nor less than those corresponding to the configuration of the letter or figure employed. There is a simple shifting apparatus to carry this inking band from one roller to the other, and afterwards back again, which prevents the same part from being struck too often.

A side lever shifts the paper at the end of each line, and a small bell is struck to warn the operator when this has to be employed.

Into further detail we need scarcely enter. The whole instrument is not larger than a sewing-machine. Its cost is twenty guineas. It only writes in capitals, the total number of keys being forty-four, arranged in four rows of eleven in each. Its simplicity is the best guarantee of its durability.

As to the "typoscript" (in contradistinction to the manuscript of ordinary handwriting), there is no comparison between its clearness and that of average penmanship. It has, in fact, all the appearances of print, with its many advantages as regards legibility, compactness, and neatness. Errors, if detected soon enough, can be corrected by the repetition of the word or sentence, and the subsequent obliteration, upon reproof, of

the faulty lines. The ink employed can be transferred like transfer ink.

The principal question which this beautiful and ingenious little instrument suggests to our minds is, whether it would not be better for every one of us to learn the Morse telegraph language, and employ it for writing upon all occasions instead of the cumbrous letters now in vogue. Thought is more quick than formerly. Germany is rapidly rejecting its archaic type; why should we not go further and write in Morse, where spots and horizontal lines do duty for all necessary signs, and type-writers of the simplest form would be required?

From The Victoria Magazine.

PHYSICAL INFLUENCES UPON CHARACTER.

THE influence of physical comforts upon us is far more considerable than we think, or would like it to be thought, perhaps. Let the most prayerful mind be ever so bent upon service to its Maker, its litany, its confessions of wrong-doing, and yet, in the very midst of its devoutest desires for amendment, the chilling frost of an uncongenial place or posture will nip the stoutest protestations in the bud. Temporal inconvenience, in nine cases out of ten, assuredly takes the upper hand where spiritual prostration essays to acknowledge itself. However devotional the character of our mind, however we may make the best intentions to "observe a lively faith in God's Holy Word," not to let it sink into mere hebdomadary letter-worship, clogged by the constant round of repetition, yet, should hard-backed seats beset us, should it unfortunately chance that a preacher's voice is droning or monotonous, these will, spite of an earnest endeavour to fix the attention, more or less affect our thoughts, and otherwise dispose of them. Even the flicker of an elusive sunbeam, or dazzling fugitive mote, will have more influence in unsettling the mind of a would-be conscientious listener than any moral truth that is being poured out before him, and to which he would fain persuade himself to attend. Among the lower classes, how very often it is to be remarked that physical comforts are more effectual in softening their character than the wisest words or the most judiciously-selected tracts. What, say they, is the use of trying to cure our souls, to ask us if we are true Christians, when our children are

starving, and we ourselves in cold and nakedness? Mere creature comforts will do more for ourselves and for them than any bare words or a holding-up of exemplary lives. Among the women, too, more particularly, a brave burial and a worthy funeral is apparently more a matter of concern than even the loss they have sustained. All the comforting assurances with which kind neighbors ply them fail to create half as much personal satisfaction as the fact of their dead having "a decent" interment. Of all the physical conditions most conducive to a rough but ready estimate of the character of any new acquaintance, or to give you an appreciable understanding of the neighbor beside whom you chance to take your seat, and which is as quick a process of discovering the "inner man" as any I know, is most certainly a dinner. A good dinner is a very safe criterion by which to form an opinion of another, and, let me add, a *bad* one will do equally as well. Whatever there is of good in a man — wit or humor, consideration or want of consideration, his pet foibles, or his peculiar ambitions, will all manifest themselves, and creep out bit by bit here and there, and proclaim the man despite himself, though to be sure you may be excluded from a certain share of unequable temper, and such minor failings as are more especially reserved for home use, or rather home abuse.

From Nature.

A FREE SPANISH UNIVERSITY.

OUR readers will easily understand what sort of a foster-mother a government like that of Spain will prove to education generally, and to scientific education and inquiry in particular. Any educational institution connected with such a State must necessarily be hampered and hindered in many ways, and the only chance of obtaining perfect liberty in scientific education and instruction is in being rid of all State interference. This has been so strongly felt in Spain by some of the foremost Spanish men of science and letters that they have formed an association to found an institution for free education. A prospectus of the institution has been forwarded us, and the difficulties which

beset a liberal education in Spain may be learned from the fact that it is signed by ten ex-professors of the highest standing, all of whom have been removed from their chairs by government on account of their liberal opinions. Among these are the names of Augusto G. de Linares, ex-professor of natural history at the University of Santiago, and Laureano Calderon, ex-professor of organic chemistry at the same university. The object of the association, as stated in the prospectus, is to found at Madrid a free institution dedicated to the culture and propagation of science in its various branches, specially by means of education. A sort of joint-stock company will be constituted by shares of two hundred and fifty francs, payable in four instalments between July next and April 1877. A preliminary meeting was to be held on the 1st inst. to constitute the society, and we earnestly hope that a successful start has been made. The association will be directed by a council representing all parties interested. The institution itself will, of course, be perfectly free from all religious, philosophical, or political restrictions, its only principles being the "inviolability of science" and the perfect liberty of teaching. There will be established, according to the circumstances and means of the society (1) studies for general, secondary, and professional education with the academic advantages accorded by the laws of the State; (2) superior scientific studies; (3) lectures and brief courses, both scientific and popular; (4) competitions, prizes, publication of books and reviews, etc. The greatest precautions will be taken to obtain as professors men of undoubted probity and earnestness and of the highest competence.

We need say nothing to our readers in recommendation of the above scheme. All who sincerely desire the welfare of Spain and the spread of scientific knowledge must sympathize with its promoters, who, we have every reason to believe, are men of the highest character and competency. We hope that not a few of our readers will show their sympathy with the object of the association by sending the moderate subscription which constitutes a shareholder to M. Laureano Figuerola, Calle de Alcalá, 72, Madrid.